# CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS. 220 Broadway, New York, June 21, 1906.

## CONTENTS.

CONSTRUCTION NEWS:
Plans and Specifications on File.................. 229
List of Contracts Pending .................. 229
Railways .................. 230
Electric Railways .................. 230
Light and Power Plants.................. 230
Bridges .................. 231
Buildings .................. 231
Water Supply and Irrigation.................. 232
Sewerage .................. 233
Streets and Roads .................. 233
Manufacturing Plants .................. 234
Miscellaneous Contracts .................. 234
U. S. Possessions and Cuba.................. 235
Mexico .................. 235
Contract Prices ..................236-237
READERS' WANTS .................. 235
CIVIL SERVICE EXAMINATIONS.................. 235
INDUSTRIAL NOTES ..................236-237
TRADE PUBLICATIONS .................. 238
PROPOSALS ..................238, 239, 240

## CONSTRUCTION NEWS.

### PLANS AND SPECIFICATIONS ON FILE.

The following Plans (P.), Specifications (S.), and Bidding Sheets (B. S.) may be seen at the office of The Engineering News Publishing Co., 220 Broadway, New York:

| Bids close. | Work. | Place. | On file. | See issue. |
|---|---|---|---|---|
| June | | | | |
| 21 | Canal | Klamath Falls, Ore | P. & S. | 5-31 |
| 21 | Dredging | Bridgeport, Conn | S. & B. S. | 5-24 |
| •22 | Macadam | Somerville, N. J | P., S. & B. S. | 6-14 |
| •26 | Dredging | New London, Conn | S. & B. S. | 5-31 |
| •27 | Storage works | Portland, Ore | P. S. & B. S. | 4-26 |
| 30 | Piers | Philadelphia, Pa | S. | 6- 7 |
| •30 | Tunnel | New Zealand | P. S. & B. S. | 5-31 |
| 30 | Railwy grading | Vaughan, N. C | S. | 6-14 |
| July | | | | |
| •2 | Sewer sys. | Cape Girardeau, Mo | S. & B. S. | 5-21 |
| •2 | Sewer system | Cape Girardeau | P. S. & B. S. | 5-24 |
| 7 | Pumps | Garden City, Kans | P. & S. | 5-31 |
| •11 | Macadam | Camden, N. J | P. | 6-21 |
| •13 | Bridge | Brandon, Man | P. & S. | 6-14 |
| Sept. | | | | |
| 15 | Hotel bldg. | Manila, P. I | S. | 3-29 |

•Work advertised in Engineering News.

### LIST OF CONTRACTS PENDING.

LIGHT, HEAT AND POWER PLANTS.

| Bids close. | Work. Place. On file. | See issue. |
|---|---|---|
| June 22. | Heating, Governor's Island, N. Y | June 14 |
| | Advertised, Eng. News, June 14. | |
| June 25. | Heating, Austin, Tex | June 14 |
| June 28. | Light-house suppl's, Tompkinsville, N. Y. | June 14 |
| June 28. | Power-house, Washington, D. C | May 17 |
| | Advertised, Eng. News, May 17 to June 21. | |
| July 2. | Gas plant, Winnetka, Ill | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| July 5. | Water power for sale, Kenora, Ont | Mar. 15 |
| | Advertised, Eng. News, Mar. 15. | |
| July 9. | Elec. machinery, Williston, N. Dak | June 21 |
| July 10. | Supplies, Philadelphia, Pa | June 21 |
| July 11. | Heating, Sherman, Tex | June 14 |
| July 17. | Wiring system, Laredo, Tex | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |

BRIDGES.

| | | |
|---|---|---|
| June 22. | Three bridges, Coshocton, O | June 14 |
| June 22. | Steel bridge, Woonsocket, R. I | June 14 |
| | Advertised, Eng. News, June 14. | |
| **June 22.** | **Bridges, etc., Columbia City, Ind** | **June 7** |
| June 23. | Bridge, Washington C. H., Ohio | June 14 |
| June 25. | Bridge, Doylestown, Pa | June 14 |
| June 26. | Bridge, Olongapo, P. I | May 24 |
| June 28. | Bridges, Brookville, Pa | June 21 |
| June 30. | Four bridges, Chatham, Ont | June 21 |
| June 30. | Bridges, St .John, N. B | Apr. 12 |
| June 30. | Bridge, Hood River, Ore | June 14 |
| July 1. | Four steel bridges, Leland, La | May 24 |
| July 2. | Steel bridge, Lakeport, Cal | May 31 |
| July 3. | Bridge, Great Neck (L. I.), N. Y | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| July 4. | Bridges, Vicksburg, Miss | June 21 |
| July 7. | Steel bridge, Mitchell, S. Dak | June 21 |
| July 13. | Steel bridge, Brandon, Man | June 14 |
| | Advertised, Eng. News, June 14 to 28. | |
| July 16. | Two bridges, Portsmouth, Ohio | June 21 |
| July 18. | Seven bridges, Cornwall, Ont | June 14 |
| No date. | Substructure, Prince Albert, Sask | June 21 |

BUILDINGS.

| | | |
|---|---|---|
| **June 22.** | **Church, Douglas, Ga** | **June 7** |
| June 22. | Post-office, St. Mary's, Ont | June 14 |
| June 23. | Car shop, Moncton, N. B | June 21 |
| June 23. | Ice plant, New York, N. Y | June 21 |
| June 25. | City building, Casey, Ill | June 21 |
| | Advertised, Eng. News, June 21. | |
| June 25. | School building, New York, N. Y | June 21 |
| **June 26.** | **Court-house, Brunswick, Ga** | **May 24** |
| | Advertised, Eng. News, May 24 and 31. | |
| June 26. | City hall, Pensacola, Fla | June 14 |
| June 27. | Building, Poughkeepsie, N Y | June 21 |
| | Advertised, Eng. News, June 21. | |
| June 28. | Three schools, Schenectady, N. Y | June 21 |
| | Advertised, Eng. News, June 21. | |
| June 30. | Hotel, Evansville, Ind | June 21 |
| July 1. | Court-house, Monticello, Ga | June 7 |
| July 2. | School, Cleveland, Ohio | June 14 |
| July 6. | Jail, Whitesburg, Ky | June 21 |
| July 10. | Alterations, Chicago, Ill | June 21 |
| July 10. | Building, Garden City, Kans | June 21 |
| July 14. | Building, Seattle, Wash | June 14 |
| Sept. 15. | Hotel, Manila, P. I | Mar. 29 |
| No date. | Planing mill, Washington, D. C | June 7 |
| No date. | Creamery, Rising Sun, Md | June 7 |

WATER SUPPLY AND IRRIGATION.

| | | |
|---|---|---|
| **June 22.** | **Filter supplies, Cincinnati, Ohio** | **June 7** |
| **June 25.** | **Water mains, etc., Port Washington** | **June 7** |
| | **Advertised, Eng. News, June 7 and 14.** | |
| June 25. | Water-works, Alturas, Cal | May 31 |
| June 25. | Pipe, Sacramento, Cal | June 14 |
| June 25. | Water system, Casey, Ill | June 21 |
| | Advertised, Eng. News, June 21. | |
| June 26. | Laying mains, Fort Wayne, Ind | June 21 |
| **June 27.** | **Pipe laying, Brownsville, Pa** | **June 14** |
| | **Advertised, Eng. News, June 14.** | |
| June 29. | Conduit & reservoir, Carney's Point, N.J. | June 7 |
| | Advertised, Eng. News, June 7 to 21. | |
| **July 1.** | **Water-works, Hailey, Idaho** | **May 31** |
| July 2. | Pipe laying, Saranac Lake, N. Y | June 14 |
| | Advertised, Eng. News, June 14 and 21. | |
| July 2. | Water mains, Braintree, Mass | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| July 2. | Pipe line, Trinidad, Colo | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| July 3. | Water-works, Regina, Sask | June 21 |
| July 6. | Water system, Chicago, Ill | June 14 |
| | Advertised, Eng. News, June 14 to 28. | |
| July 7. | Pumps, Garden City, Kans | May 17 |
| | Advertised, Eng. News, May 17 to June 21. | |
| July 7. | Water valves, Washington, D. C | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| July 7. | Water mains, Laurinburg, N. C | June 21 |
| July 8. | Pipe, Vancouver, B. C | June 14 |
| July 9. | Pumping station, Williston, N. Dak | June 14 |
| **July 9.** | **Engine, Pawtucket, R. I** | **June 7** |
| | **Advertised, Eng. News, June 7 to 21.** | |
| July 9. | Water-works, Leigh, Nebr | June 21 |
| July 12. | Water system, Carencro, La | June 14 |
| July 14. | Pipe system, New Philadelphia, Ohio | June 21 |
| July 18. | Pumping station, etc., Columbus, Ohio | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | |
| July 19. | Dam, Lancaster, Pa | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| Aug. 1. | Water-works, Glasgow, Mont | June 21 |
| **Aug. 1.** | **Artesian wells, Famagusta, Egypt** | **May 31** |
| | **Advertised, Eng. News, May 31 to June 21.** | |
| Aug. 2. | Storage reservoir, Altoona, Pa | June 21 |
| | Advertised, Eng. News, June 21 to July 19. | |
| Aug. 7. | Pumping plant, Billings, Mont | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | |
| Sept. 5. | Two reservoirs, New Orleans, La | June 21 |
| | Advertised, Eng. News, June 21 to Aug. 30. | |
| **Oct. 15.** | **Water-works, Rio Grande do Sul, Brazil.** | **May 31** |

SEWERAGE.

| | | |
|---|---|---|
| June 22. | Sewer, Valparaiso, Ind | June 14 |
| June 23. | Sewers, Evansville, Ind | June 14 |
| June 23. | Sewers, Seattle, Wash | June 14 |
| **June 23.** | **Sewers, Ogden, Utah** | **June 7** |
| **June 23.** | **Sewers, Norwood, Ohio** | **June 7** |
| June 25. | Sewer, Wabash, Ind | June 14 |
| June 25. | Sluice gates, Washington, D. C | June 14 |
| | Advertised, Eng. News, June 14 and 21. | |
| June 25. | Drain, Ormsby, Minn | June 14 |
| June 25. | Sewer, South Bend, Ind | June 21 |
| June 25. | Sewers, Foxcroft, Me | June 21 |
| June 25. | Sewers, Casey, Ill | June 21 |
| | Advertised, Eng. News, June 21. | |
| June 26. | Sewer, Vacaville, Cal | Apr. 5 |
| June 27. | Drains, Millbrook, Ont | June 14 |
| June 28. | Sewers, Seneca Falls, N. Y | June 14 |
| | Advertised, Eng. News, June 14 and 21. | |
| June 28. | Sewers, New York, N. Y | June 21 |
| June 29. | Sewer, Norfolk, Nebr. | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| June 30. | Sewers, etc., Collingwood, Ohio | June 21 |
| June 30. | Sewer, Medford, Ore | June 14 |
| July 2. | Sewers, Saranac Lake, N. Y | June 14 |
| | Advertised, Eng. News, June 14 and 21. | |
| July 2. | Sewer, Des Moines, Iowa | June 21 |
| July 3. | Sewers, Regina, Sask | June 21 |
| July 3. | Sewer work, Waterbury, Conn | June 14 |
| July 5. | Sewers, Woonsocket, R. I | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| July 6. | Sewers, etc., New York, N. Y | June 21 |
| July 7. | Sewers, Laurenburg, N. C | June 21 |
| July 10. | Sewers, Fairbury, Nebr | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| July 10. | Sewer, Two Rivers, Wis | June 21 |
| July 19. | Concrete sewer, Lancaster, Pa | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| No date. | Sewers, New Philadelphia, Ohio | June 21 |

STREETS AND ROADS.

| | | |
|---|---|---|
| June 21. | Paving, London, Ont | June 14 |
| June 21. | Paving, Boise, Idaho | June 14 |
| June 21. | Paving, Guthrie, Okla | June 14 |
| **June 22.** | **Macadam, Somerville, N. J** | **June 7** |
| | **Advertised, Eng. News, June 7 to 21.** | |
| **June 22.** | **Paving, Norfolk, Va** | **May 31** |
| | **Advertised, Eng. News, May 31 and June 7.** | |
| June 23. | Brick road, Danville, Ill | June 14 |
| June 23. | Grading, etc., Randleman, N. C | June 14 |
| June 23. | Macadam, Wheeling, W. Va | June 21 |
| June 23. | Gravel roads, Concordia, N. H | June 21 |
| June 25. | Paving, Syracuse, N. Y | June 21 |
| June 25. | Paving, Casey, Ill | June 21 |
| | Advertised, Eng. News, June 21. | |
| June 26. | Concrete walks, Columbus, Miss | June 21 |
| June 26. | Paving, Cohoes, N. Y | June 21 |
| | Advertised, Eng. News, June 14. | |
| June 26. | Granite paving, New York, N. Y | June 21 |
| June 27. | Paving, Effington, Ill | June 21 |
| June 27. | Paving, Chillicothe, Ohio | June 21 |
| June 27. | Paving, etc., Meadville, Pa | June 21 |
| | Advertised, Eng. News, June 21. | |
| June 27. | Grading, etc., New York, N. Y | June 14 |
| June 28. | Street improvement, Dunkirk, N. Y | June 14 |
| | Advertised, Eng. News, June 14 and 21. | |
| June 28. | Roads, Albany, N. Y | June 7 |
| | Advertised, Eng. News, June 7 to 21. | |
| June 28. | Sidewalks, Madison, N. J | June 21 |
| | Advertised, Eng. News, June 21. | |
| June 28. | Improvements, Spokane, Wash | June 21 |
| June 28. | Paving, etc., Champaign, Ill | June 21 |
| | Advertised, Eng. News, June 21. | |
| June 28. | Traverse road, New York, N. Y | June 21 |
| June 28. | Grading, etc., New York, N. Y | June 21 |
| June 29. | Paving, Indiana, Pa | June 21 |
| | Advertised, Eng. News, June 21. | |
| **June 29.** | **Paving, Indiana, Pa** | **June 14** |
| | **Advertised, Eng. News, June 14.** | |
| **June 29.** | **Roads, Albany, N. Y.** | **June 7** |
| | Advertised, Eng. News, June 7 to 21. | |
| **June 30.** | **Roads, Albany, N. Y** | **June 7** |
| | Advertised, Eng. News, June 7 to 21. | |
| **June 30.** | **Sidewalks, Terrace Park, O** | **June 14** |
| June 30. | Walk, Terrace Park, Ohio | June 14 |
| June 30. | Macadam, etc., Concord, N. H | June 21 |
| July 2. | Gravel road, Columbus, Ind | June 21 |
| July 2. | Paving, Glens Falls, N. Y | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| **July 2.** | **Gravel road, Greencastle, Ind** | **June 14** |
| **July 2.** | **Gravel road, Crownpoint, Ind** | **June 14** |
| **July 2.** | **Grading, etc., Cincinnati, O** | **June 14** |
| **July 2.** | **Macadam, Clinton, Tenn** | **June 14** |
| **July 3.** | **Macadam, Spencer, Ind** | **June 14** |
| **July 3.** | **Stone road, Paulsboro, N. J** | **June 14** |
| | **Advertised, Eng. News, June 14 to 28.** | |
| **July 3.** | **Grading and paving, Waterbury, Conn** | **June 7** |
| | **Advertised, Eng. News, June 7 to 21.** | |
| **July 3.** | **Paving, Regina, Sask** | **June 21** |
| July 6. | Grading, etc., Salt Lake City, Utah | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| July 9. | Macadam, Mount Holly, N. J | June 21 |
| July 9. | Road improvement, Pittsburg, Pa | June 21 |
| July 9. | Paving, etc., Altoona, Pa | June 21 |
| | Advertised, Eng. News, June 21. | |
| July 10. | Macadam, Bedford, N. Y | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | |
| July 11. | Macadam, Freehold, N. J | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | |
| July 11. | Improvement, Delaware, Ohio | June 21 |
| No date. | Bitulithic, Paulsboro, N. J | June 14 |
| | Advertised, Eng. News, June 14 to 28. | |

MISCELLANEOUS CONTRACTS.

| | | |
|---|---|---|
| June 22. | Dredging, Jacksonville, Fla | June 14 |
| June 23. | Ditch, Crookston, Minn | June 14 |
| **June 23.** | **Dredging, Walnut, Ill** | **June 7** |
| | **Advertised, Eng. News, June 7 and 14.** | |
| **June 25.** | **Machinery, Pittsburg, Pa** | **June 7** |
| **June 25.** | **Grading and bridging, Tremont, La** | **June 7** |
| June 25. | Repairing breakwater, Burlington, Vt | May 31 |
| | **Advertised, Eng. News, May 31 to June 21.** | |
| June 26. | Dredging, New London, Conn | May 31 |
| | **Advertised, Eng. News, May 31 to June 21.** | |
| June 26. | Launches, New York, N. Y | June 14 |
| June 26. | Ditch, Columbus, Ind | June 14 |
| June 27. | Storage works, Portland, Ore | Apr. 26 |
| | **Advertised, Eng. News, Apr. 26 to May 10.** | |
| June 27. | Breakwaters, Sheboygan, Wis | June 21 |
| | Advertised, Eng. News, June 14 and 21. | |
| June 28. | Dam, Hermiston, Ore. | May 3 |
| | **Advertised, Eng. News, May 3 to June 7.** | |
| **June 28.** | **Light-house supplies, Tompkinsville, N.Y.** | **May 31** |
| | **Advertised, Eng. News, May 31 to June 21.** | |
| **June 28.** | **Dredging, Erie, Pa** | **June 7** |
| | **Advertised, Eng. News, June 7 to 21.** | |
| **June 29.** | **Retaining walls, Catlettsburg, Ky** | **May 31** |
| | **Advertised, Eng. News, May 31 to June 21.** | |
| June 29. | Canal, Portland, Ore | May 10 |
| | **Advertised, Eng. News, May 10 to June 7.** | |
| June 29. | Screens, Fort Monroe, Va | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| **June 30.** | **Superstructure, Chicago, Ill** | **May 31** |
| | **Advertised, Eng. News, May 31 to June 21.** | |
| **June 30.** | **Piers, Philadelphia, Pa** | **June 7** |
| **June 30.** | **Sea wall, Fort Monroe, Va** | **June 7** |
| | **Advertised, Eng. News, June 7 to 28.** | |
| June 30. | Railway grading, Vaughan, N. C | June 14 |
| | Advertised, Eng. News, June 14. | |
| July 5. | Dikes, New York, N. Y | June 14 |
| | Advertised, Eng. News, June 14 and 21. | |
| July 5. | Post-office boxes, Washington, D. C | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| July 7. | Portland cement, Chicago, Ill | June 21 |
| | Advertised, Eng. News, June 21 and 28. | |
| July 7. | Wharf, Fort Munroe, Va | June 14 |
| | Advertised, Eng. News, June 14 to July 5. | |
| **July 7.** | **Pumps, Garden City, Kans** | **May 31** |
| July 9. | Tunnel, Arthur's Pass, New Zealand | June 7 |
| | Advertised, Eng. News, June 7 to July 5. | |
| July 9. | Pumping station, Williston, N. Dak | June 14 |
| **July 10.** | **Dam, Cody, Wyo** | **June 7** |
| | **Advertised, Eng. News, June 7 to 28.** | |
| July 10. | Dredging, Columbus, Ohio | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | |
| July 10. | Concrete abutments, Columbus, O | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | |
| July 10. | Aqueducts, Columbus, Ohio | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | |
| July 10. | Locks, Columbus, Ohio | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | |
| July 11. | Canal, Cody, Wyo | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | |
| July 11. | Butterfly dam, Chicago, Ill | **May 17** |
| | Advertised, Eng. News, May 17. | |
| July 11. | Dredging, Detroit, Mich | **June 14** |
| | Advertised, Eng. News, June 14 to July 5. | |
| July 12. | Rebuilding locks, Columbus, Ohio | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | |
| July 12. | Portland cement, Columbus, Ohio | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | |
| July 16. | Dredging, Biloxi, Miss | June 21 |
| | Advertised, Eng. News, June 21 to July 12. | |
| July 16. | Monument, Palestine, Tex | June 14 |
| July 19. | Dredging, Boston, Mass | June 21 |
| | Advertised, Eng. News, June 21 to July 12. | |
| July 19. | Concrete dam, Roscoe, Ohio | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | |
| July 19. | Dredging, Roscoe, Ohio | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | |
| July 24. | Steel bars, Billings, Mont | June 21 |
| | Advertised, Eng. News, June 21 to July 5. | |
| July 24. | Canal widening, Detroit, Mich | June 7 |
| | **Advertised, Eng. News, June 7.** | |
| **July 31.** | **Canal, Browning, Mont** | **June 7** |
| | **Advertised, Eng. News, June 7 to July 5.** | |
| Aug. 7. | Pumping plant, Billings, Mont | June 21 |
| | Advertised, Eng. News, June 21 to July 19. | |
| Aug. 30. | Tunnel, Boston, Mass | June 21 |
| | Advertised, Eng. News, June 21 to July 26. | |
| Sept. 4. | Railway supplies, Siam (Foreign) | Apr 26 |
| | Advertised, Eng. News, Apr. 26. | |
| **Sept. 4.** | **Cars, Bangkok, Siam** | **May 31** |
| | **Advertised, Eng. News, May 3 and 10.** | |
| **Sept. 12.** | **Locomotives, Bangkok, Siam** | **May 31** |
| | **Advertised, Eng. News, May 3 and 10.** | |
| **Oct 15.** | **Drains, Rio Grande do Sul, Brazil** | **May 31** |
| **No date.** | **Hill levelling, Famagusta, Egypt** | **June 7** |
| | **Advertised, Eng. News, June 7 to 28.** | |

CIVIL SERVICE EXAMINATIONS.

| | | |
|---|---|---|
| June 27. | Testing Engineer, Washington, D. C | May 31 |
| June 27. | Gen. Mechanic, Seger Agency, Okla | May 31 |
| June 27. | Testing Engr., Washington, D. C | May 31 |
| June 27. | Survey aids, Washington, D. C | June 21 |
| June 27. | Topographic Draftsman, Panama | June 21 |
| **June 30.** | **Rodman, Albany, N. Y** | **June 7** |
| | **Advertised, Eng. News, June 7.** | |
| **June 30.** | **Bridge Designer, Albany, N. Y** | **June 7** |
| | **Advertised, Eng. News, June 7.** | |
| **June 30.** | **Bridge Draftsman, Albany, N. Y** | **June 7** |
| | **Advertised, Eng. News, June 7.** | |
| **June 30.** | **Arch. Draftsman, Albany, N. Y** | **June 7** |
| | **Advertised, Eng. News, June 7.** | |
| **July 5.** | **R. R. Transportation Agt., Wash., D. C.** | **June 7** |
| **July 5.** | **Hospital Interne, Panama** | **June 7** |
| **July 5.** | **Arch. Draftsman, Philippine Islands** | **June 7** |
| **July 5.** | **Civil Engr., Hot Springs, Ark** | **June 7** |
| July 5. | Arch. Draftsman, Tompkinsville, N. Y | June 21 |
| July 5. | Pumping Engr., Fort McPherson, Ga | June 21 |
| **July 6.** | **Medical Interne, Washington, D. C** | **June 7** |
| July 7. | Leveler, Albany, N. Y | June 21 |
| July 7. | Asst. Civil Engr., Albany, N. Y | June 21 |
| July 11. | Surveyor, Philippine Islands | June 21 |
| July 11. | Irrigation Draftsman, Arizona | June 21 |
| July 18. | Engr. and Miller, Arizona | June 21 |

## Proposed Work

ENGINEERING NEWS desires to obtain the **EARLIEST POSSIBLE RELIABLE INFORMATION** concerning all projected work. We will appreciate any items that you may send us. Copies containing such information will be mailed to you, upon request.

Address, **Construction News Department**

### RAILWAYS.

***The names of parties awarded contracts are printed in capital letters.***

APALACHICOLA NORTHERN—It is proposed to construct a road 98 miles long, extending from River Junction through Apalachicola to St. Joseph Bay, Fla. The MOREY ENGINEERING & CONSTRUCTION CO., of St. Louis, Mo., which has the general contract, has completed grading on 19 miles of the line and work on the remainder is being rushed. William A. Hunicke, Apalachicola, is Ch. Engr.

ATCHISON, TOPEKA & SANTA FE.—The GRANT BROS. CONSTRUCTION CO., of Los Angeles, has been awarded the contract for grading the last section of the Belden cutoff. The contract calls for 22 miles of grade, with bridges, culverts, concrete and other work. B. H. Newley, Las Vegas, N. Mex., is Asst. Engr.

AUGUSTA & NORTHWESTERN.—Charter has been applied for in Georgia to build a railroad under this name from Augusta to Athens, Ga., 90 miles. The incorporators are: E. F. Verdery, P. D. Langdon, Charles T. Fargo, Bryan Lawrence, W. W. Ramsey, W. E. Andrews, J. T. Smith and W. B. White, all of Augusta.

BEACH RIVER & GULF.—It is reported that this road, which is now in operation from Timber to Midline, Tex., is to be extended from Midline east and southeast to Beaumont, 65 miles, and from Timber northwest to a point on the International & Great Northern between Conroe and Willis, 12 miles. Preliminary surveys have been commenced. A. W. Miller, Vice-Pres. and R. W. Luttrell, Ch. Engr., are at Galveston, Texas.

CANADA.—Reports from Canada show remarkable activity in railway construction throughout the Dominion. Contracts have been let for an enormous amount of work on the Grand Trunk Pacific and are still being let as fast as bids can be received and tabulated. The Grand Trunk Branch Lines bill has been amended in the House of Commons so that the construction of 22 branch lines must be begun within two years and finished in ten. Contracts for material for this work are already being awarded and we are informed that four bids on 68,000 tons of steel rails are now in the hands of the Railway Commission. The "SOO" ROLLING MILLS CO. and the DOMINION IRON & STEEL CO., Sydney, N. S., have each been awarded a contract for 32,500 tons of steel. There are three bids for supplying 1,500,000 ties now being considered. The new line from Reidscop to Quebec for which MACDONALD & O'BRIEN have the general contract is being rushed. There are eight subcontractors on this work. M. P. & J. T. DAVIS have the contract to build 50 miles west of Quebec on the same extension. The new line through Portage la Prairie, 50 miles, is being built by F. CONNOR, of Portage la Prairie. B. B. Kelliher, Montreal, is Ch. Engr. of the Grand Trunk Pacific.

The Canadian Pacific Ry. is also pushing work on various extensions. Under the name of the Kettle River Ry. a line is being built from Grand Forks, B. C., along the north fork of the Kettle River to the McKinley mines, about 50 miles. This is all mountain work and has been awarded to W. P. TIERNEY, of Nelson, B. C., at $25,000 per mile, a total of $1,250,000. The ultimate terminus of this road is Spokane. Surveys are now being made for 300 miles of line through Kicking Horse Pass, north of the present route. Right-of-way and capital are both secured, and it is expected that contracts for the work will be let very soon. The BRITISH COLUMBIA CONTRACT CO., Geo. H. Webster, Mgr., has the contract for grading and clearing the right-of-way on the new Strassburg extension, from Strassburg to Saskatoon, 112 miles. The line from Winnipeg to Molson, 25 miles, is being built by J. M. CULLENDAR and CHAS. PETERSON, both of Winnipeg. E. P. Gutelius, Montreal, is Ch. Engr.

On the Canadian Northern, of which W. H. McLeod, of Winnipeg, is Ch. Engr., a line 80 miles long, east from Port Arthur, is being built and contract was awarded on June 14 to J. COWAN, of Carberry, Man., for 95 miles of construction from Oakland to Makinak.

The Ontario Government has granted the Canada Central Ry. Co. a subsidy of $5,000 per mile for 53 miles of line from Little Current to a point near Sudbury, Ont., and contracts will be let at once.

The Revillon Ry. Co., of which W. R. Revillon, of Montreal, is Pres., will let contracts soon for the construction of 1,000 miles of railway, from Quebec northwest into the fur-trading country. Capital of $5,000,000 has been secured and the company also has permission from the Government to build branch lines, not to exceed ten miles in length, and run steamboats.

The Ontario Government has subsidized the Bruce Mines & Algoma Ry. Co. at $3,000 per mile and a 25-mile line will be built to open up the Bruce copper district.

Application for a charter for the Kamloops & Yellowhead Ry. Co., a branch of the Canadian Pacific, has just been granted and contracts are to be let at once for a line 250 miles long from Kamloops to Teke Janne Cache, B. C.

Smith & Johnson, attorneys, of Victoria, B. C., are applying to the Legislature of British Columbia for a charter for the Fording Valley Ry. Co., which proposes to build a line from a point on the British Columbia Southern through Elk River to the Alberta boundary and thence to Okatoka and Smith via Grace and Levis, 107 miles. Capital is secured.

Contracts have been let to the RHODES-CURRY CO., of Amherst, N. S., for building a 110-mile extension of the Temiskaning & Northern Ontario Ry., from New Liskeard to Temiskaning. G. A. McCarthy, North Bay, Ont., is Ch. Engr.

Bills have been passed giving power to the Vancouver & Lulu Island Ry., the Columbia & Kootenay Ry. & Navigation Co.; the British Columbia Southern Ry. and the Pacific, Northern & Ovenec Ry. Co. to build branch lines.

CHICAGO, BURLINGTON & QUINCY.—Regarding the recently published statement that this road would rush work on double-tracking its line from Kansas City to St. Josephs, Mo., L. F. Goodale, Engr., M. of W., says in a letter to us: "Nothing whatever has been done towards double-tracking the Burlington Railroad between Kansas City and St. Joseph. Like all other busy lines, this is bound to come some time; possibly a portion of it may be done this year."

CHICAGO, MILWAUKEE & ST. PAUL.—This railway has purchased the Oglesby & Granville Ry., in Illinois, and will complete the construction work. D. J. Whittemore, Chicago, is Ch. Engr.

CHICAGO & NORTHWESTERN.—According to press reports grading has been completed from Rapid City, S. D., east about 40 miles, on the extension from Pierre to Rapid City, and tracklaying will begin from the latter point on June 15. It is reported that the Northwestern will soon let the contract for the further extension of its track west 100 miles through the Shoshone or Wind River reservation, which is to be thrown open to settlement August 15 next. The line will cross the Big Horn River west of Shoshone and continue due west across the big bench lying between Wind River and Muddy Creek. It will run along this bench for about 60 miles, entering the Wind River Valley near the mouth of Crow Creek. At the western terminal of the line, near the present site of Dubois, another town will be started. E. C. Carter, Chicago, is Ch. Engr.

CHICAGO, ROCK ISLAND & PACIFIC.—J. B. Berry, Ch. Engr. of the Rock Island, Arkansas & Louisiana R. R., a branch of the Rock Island, writes us that contract has been let to the DELHOFF CONSTRUCTION CO., of Little Rock, Ark., for the branch from Alexandria to Eunice or Opelousas, La.

COPPER RIVER.—It is reported that M. J. HENEY has begun work on this road, which is being built by Close Bros. & Co., of Chicago and London, England, from Cordova, Alaska, to the Copper River and thence along that stream to a point north of Taral, a distance of 135 miles. Eventually the road is to be extended north to Tanana Junction on the river of the same name, and branches are proposed from a point north of Taral east to Bonanza Mine, and from a point near the mouth of Copper River southeast to near Bering Lake.

DOUBLIN & SOUTHWESTERN.—We are officially informed by J. J. Simpson, V.-Pres., Atlanta, Ga., that this road proposes to build a line from Eastman to Cordelle, Ga., through Hookinsville.

GULF, BROWNWOOD & CISCO.—Surveys have been completed for this road from Brownwood to Cisco, Tex., 55 miles. The following officers have been elected: G. H. Connell, Pres.; J. C. Weakley, V.-Pres.; J. A. Austin, Secy.; Brooke Smith, Treas. Headquarters, Brownwood, Tex.

LOUISVILLE & NASHVILLE.—WALTON, WILSON, RODES & CO. have been awarded a contract by the Louisville & Nashville R. R. Co. to build 56 miles of road in Kentucky connecting the St. Louis and Louisville lines of that road. The new line will be known as the Madisonville, Hartford and Eastern, and will open up valuable coal property in Eastern Kentucky. The contract price is $1,200,000, and the work is to be completed in 18 months.

MARIANNA, BRINKLEY & WESTERN.—Articles of incorporation have been filed by the Marianna, Brinkley & Western R. R. Co., which proposes to build a line 30 miles in length from Marianna to Brinkley, Ark. The capital stock is $210,000. The incorporators are Julius Lesser, Morris Lesser, W. P. Weld, S. D. Johnson, James B. Grove, W. T. McClintock and J. R. Jarrett.

MARION R. R. CO.—The Marion R. R. Co. has been chartered to build a road from Fairmont via Fairview to Blockville, W. Va. The capital is $500,000, and the incorporators are: J. Y. Hamilton, J. R. Thomas, Jr., J. B. Gregory and J. W. P. Jarvis, of Fairview; Thomas W. Fleming, James R. Linn, Frank H. Bailey and Allison S. Fleming, of Fairmont.

MERIDIAN & TOMBIGBEE.—The Governor of Mississippi has issued a proclamation authorizing the incorporation of the Meridian & Tombigbee R. R. Co., which proposes to run a line easterly from Meridian, Miss., to Naheola, Ala. The project is backed by a lumber syndicate. Among the incorporators are C. F. Woods and Frank Heiss, of Meridian, Miss., and Dr. J. P. Phillips, of Gantley, Ala. Right-of-way has been secured and surveys are completed. F. D. Harvey, Meridian, is Ch. Engr.

MIONA SPRINGS.—This road is to be built from Fort Valley, Ga., to Southland, on the Atlanta, Birmingham & Atlantic, 27 miles. J. R. Lane, Gen. Mgr., Fort Valley, Ga. Incorporators: F. O. Miller, A. B. Greene, A. J. Evans, J. R. Lane, C. B. Culpepper, C. L. Shepard, C. W. Arrowsmith, W. W. Henderson and A. O. Brewton, of Fort Valley, and others.

SEABOARD AIR LINE.—The Seaboard Air Line Ry. Co. is surveying for a railroad from Conway, 4 miles southeast of Orlando, to a large tract of timber land. W. L. Seddon, Portsmouth, Va., is Ch. Engr.

TOPEKA & NORTHWESTERN.—We are advised by W. D. Richardson, Asst. Engr., Marysville, Kans., that surveys are completed and right-of-way secured and contract awarded to KILPATRICK BROS. for the proposed line from Onaga to Marysville, Kans.

TRINITY VALLEY & NORTHERN.—A charter has been granted this company, which has its principal office at Dayton, Tex. It is proposed to construct a line from Dayton to Cleveland, 25 miles. The incorporators are: L. Fouts, A. L. Rutt, J. B. Sterling, of Dayton; R. I. Sterling, Charles B. Wood, W. B. Cottingham, Champ Ross, of Houston; J. O. Tolman, of Richmond; C. L. Rutt, of Beaumont, and W. H. McGregor, of Carson, Texas.

UNIONTOWN & WHEELING SHORT LINE.—It is reported that contracts will be awarded within a few weeks for building this road from Uniontown, Pa., to Wheeling, W. Va., 68 miles. The rights and property of the company have been acquired by the Western Maryland and the road will form a part of the connecting link between that line at Cumberland, Md., and Wheeling & Lake Erie at Wheeling, W. Va. J. Q. Barlow, Cumberland, Md., is Ch. Engr.

#### Further Date Extension.

As noted in the proposal advertisement in this issue, the date for receiving bids for the "Arthurs Pass Tunnel," on the New Zealand Midland Ry., is changed from July 9 to July 23.

### ELECTRIC RAILWAYS.

***The names of parties awarded contracts are printed in capital letters.***

BOSTON, MASS.—It is reported that the Boston Elevated Ry. Co., which holds a franchise to build an elevated railroad in Cambridge, have received certain concessions from the people of that town and will build a two-track subway instead. The main route for the proposed subway is for the tracks to cross the new West Boston bridge from the Boston to the Cambridge side of the Charles River, and then become a subway under Main St. and Massachusetts Ave. to Harvard Square. There is provision for subsequent construction from Central Square in Cambridgeport, which is about a mile east of Harvard Square, southwesterly under River St. toward Brighton. Further provision is made for subsequent construction around the west side of Harvard University grounds and back easterly on Cambridge St. to Boston, crossing over the new Charles River dam, which will be built with provision for a driveway on its broad surface and further room for car tracks on its downward slope, thence up Leverett, Brighton, Lowell and Causeway Sts. by the north union station, and to a connection with the present elevated structure and the new Washington St. subway, now under construction. Provision is also made for an extension of the subway in Cambridge under Webster Ave. toward Somerville, so that that city can be included in the system eventually. The lines under Cambridge St., River St. and Webster Ave., under the terms of a bill now pending in the Massachusetts Legislature, may be begun at the option of the company any time within four years after the Main St. line is put in operation. A referendum is permitted to the company on the acceptance of the act, but none is given to the city of Cambridge. After 20 years the city of Cambridge shall have the right to buy the property.

OSSINING, N. Y.—The Board of Railroad Commissioners of New York has issued a certificate authorizing the construction of the Hudson River Eastern Traction Co.'s line from Ossining, through Briar Cliff Manor and Pleasantville to Mount Pleasant, N. Y.

BUFFALO, N. Y.—The Buffalo, Lake Erie & Niagara Ry. Co. is just organized and proposes to build a connecting railroad around and just outside of the city of Buffalo, and to Tonawanda, passing through West Seneca, Hamburg, Cheektowaga, Amherst and Tonawanda; total length about 36 miles. The work will include about 3,000,000 cu. yds. of embankment made from borrow pits, and 500,000 cu. yds. of cuts; double-track to be laid and ballasted, bridges built on concrete foundations, and the necessary terminals, tracks and buildings. There is also to be a breakwater 4,800 ft. long, and a harbor, docks and slips. The maximum grades will be 1.14%, and maximum curves of 10%, though mostly 6%. The bridge work includes 14 railroad bridges, three for use of electric cars, and 37 highway bridges. There will be five smaller bridges over streams, 18 farm bridges, 13 culverts, two pile trestles and one frame trestle. Contracts are to be let as soon as certificate has been granted by the New York State Board of Railroad Commissioners. Edward Michael, 618 Mooney Bldg., is Pres., and C. C. Conkling, 798 Ellicott Ave., Ch. Engr.

NEW YORK, N. Y.—A report favoring the construction of the proposed Van Cortlandt Park rapid transit route has been filed by the Commissioners appointed by the Appellate Division of the Supreme Court. The Commissioners are James A. Donnelly, Paul L. Kiernan and Julius G. Kremer. The route is substantially an extension of the present west side subway system. It will begin on Broadway at 230th St., in the Bronx, and run north along Broadway to a point beyond 242d St., and opposite the entrance to the park. It is to be an elevated structure, like the elevated portions of the present west side subway. The estimated cost is $742,000.

PENSACOLA, FLA.—A. Eliasburg, D. A. Frank, E. E. Melvin and R. Richard have applied for a charter for the Pensacola Shore Line & Power Co., to construct an electric railway 50 miles in length from Pensacola to the Alabama state line, and to supply electric light and power for general use.

BIRMINGHAM, ALA.—The Birmingham Railway, Light & Power Co. will make improvements that call for a large expenditure on the street railway system of Birmingham and the district. Four of the present lines will be double-tracked, a new line will be built to South Highlands, and a network of tracks will be built in the vicinity of the new union passenger station. J. A. Emery is Gen. Mgr.

VICKSBURG, MISS.—The Vicksburg Electric Ry. & Power Co. has asked authority from the Warren County Board of Supervisors to extend its line to the [illegible] monument in the National Park. G[illegible]llis, Vicksburg, Miss., is Gen. Mgr.

NEW IBERIA, LA.—The [illegible]d of Trade has indorsed the application [illegible] E. W. Connery, of New Orleans, fo[illegible] franchise to build an electric road for [illegible] Iberia and extending to the towns with[illegible] radius of 25 miles, making New Iberia [illegible]ntral point. The proposition is for the [illegible] Council to grant him a franchise for [illegible] to run an electric road through its [illegible]pal streets, reaching out into the cou[illegible]. He agrees to commence the constru[illegible] the road within five months.

COVINGTON, KY.—The C[illegible]n, Middle-march, Ft. Thomas & Alex[illegible] Interurban Ry. Co. is reported incorpo[illegible] to build a line along the Kentucky [illegible] the Ohio River from Covington to [illegible]omas, and then down the Licking Riv[illegible] Alexandria.

CINCINNATI, OHIO.—J. P[illegible]ane, Secy., Norwood, Ohio, writes that [illegible] miles have been graded on the Cincin[illegible] Columbia line from Norwood to H[illegible] Ohio, 53 miles, via Madisonville, M[illegible] Terrace Park, Milford, Boston, Faye[illegible] and Dodsonville. H. H. Hoffman, [illegible]nati, Ohio, is Pres.; D. Riddle, Newport, [illegible] Ch. Engr.

CLEVELAND, OHIO.—The [illegible]EVELAND CONSTRUCTION CO., of Clev[illegible] has been awarded the entire contract f[illegible]lding and equipping the line of the Clev[illegible], Ashland & Mansfield Traction Co.'s li[illegible] This road will be an extension of the Clev[illegible] & Southwestern Traction Co. system, [illegible]ching off from the southern division o[illegible] road at Seville and extending to Ashl[illegible] and Mansfield. The new line to be co[illegible]ucted will be about 46 miles in length. [illegible] be built entirely on private right of way, except through villages. The CLEVELAND CONSTRUCTION CO. is to commence work within 60 days, and will close contracts for construction work and material immediately. Track will be laid with 70-lb. T-rail, 60-ft. length in the country and 74-lb. 7-in. T-rail on paved streets. There will be approximately 362,450 cu yds. of excavation and about 122,000 ties. Some 8,050 soldered bonds will be required for the track work. Six inches of gravel or crushed stone ballast will be laid. The right-of-way will be fenced, and vitrified clay cattle guards will be used. There will be nine timber bridges of from [illegible] to 136 ft. and three girder spans 60 to 80 ft. long. Roberts & Abbott Co., of Cleveland, are Engrs.

DETROIT, MICH.—The Detroit United Ry. is reported to be preparing to extend its system from Flint to Saginaw and Bay City. The extension will be built largely on the old Silsbee right-of-way, between the Pere Marquette R. R. and the Flint River, going east of Mt. Morris, but touching Clio and Bridgeport and crossing the Pere Marquette at Bridgeport. F. W. Brooks is Gen. Mgr.

DES MOINES, IOWA.—An official report states that the Interurban Ry. Co. will extend its lines from Des Moines to Perry and Woodward, Ia., 38.4 miles. The route includes Granger and the new towns of Herrold, Moran and Gardner. The J. A. WARE CONSTRUCTION CO., of St. Louis, has the contract for grading, and C. C. CHRISTY, of Des Moines, has contracted for the track construction. H. H. Polk is Pres.; F. S. Cummins, Ch. Engr.

BROOKINGS, S. DAK.—We are informed by Neil Stuart, Pres., that surveys are nearly completed for the Brookings & Sioux Falls Ry. Co., which is to be built from Brookings to Sioux Falls, S. Dak., via Flandreau, about 60 miles, and the town of Brookings has donated the right-of-way and terminal facilities at its end of the line. Isaac A. Smith, of St. Louis, is Ch. Engr.

LOS ANGELES, CAL.—The City Council has been asked to advertise for sale a franchise for a street railway extending from Broadway and Seventh St., in a southeasterly direction, to the city limits.

SALT LAKE CITY, UTAH.—F. M. Lyman, Jr., Ch. Engr. of the Intermountain Consolidated Ry., Salt Lake City, Utah, writes that this road, from Preston, Idaho, to Levan, Utah, will be 300 miles long, of which five miles will be in Idaho. The route includes Logan, Brigham City, Ogden, Salt Lake City, Provo, Springville, Payson and Nephi, Utah. The road will be double-tracked, laid with 80-lb. rails, and both freight and passengers will be carried.

EDMONTON, ALTA.—The City Engineer has prepared plans by order of the City Council for the building of an electric street railway to run from Kinestino to 21st St. on Jasper Ave., and from Jasper to the Canadian Northern depot, on First St. The estimated cost of the railway is $66,000. John Stocks is Depy. Min. Dept. Pub. Wks.

### LIGHT AND POWER PLANTS.

***The names of parties awarded contracts are printed in capital letters.***

FORT ETHAN ALLEN, VT.—We are officially advised that the Northern Electric Co. submitted the lowest bid on June 15 for electric light fixtures in the Administration Building at this post. Capt. W. E. Cole is Q. M.

EAST HAMPTON, CONN.—The RHODE ISLAND CONTRACT ENGINEERING CO., of Providence, R. I., F. M. Hoadley, Mgr., has entire contract for installation and equipment, including lines, etc., for Salmon River Power Co., at East Hampton. Estimated cost, $500,000.

NEW YORK, N. Y.—Award has been made by the Bureau of Yards and Docks, Navy Dept., Washington, to the WESTINGHOUSE ELECTRIC & MFG. CO., 1500 Continental Trust Bldg., Baltimore, Md., for furnishing two motor generator sets and appurtenances for the Navy Yard, New York, at $10,674.

FORT SLOCUM (New Rochelle post office), N. Y.—Bids are asked until July 1[illegible] by E. N. Jones, Constr. Q. M., Fort Slocum, for construction of an electric lighting system at this post.

MIDDLETOWN, N. Y.—The PREMIER ELECTRICAL CO., of Troy, has been awarded a contract of about $5,000 for electrical work at Middletown State Hospital, Middletown, N. Y., by the State Commission in Lunacy.

PHILADELPHIA, PA.—Bids are asked until 10 a. m., July 10, by the Bureau of Supplies and Accounts, Navy Dept., Washington, D. C., for arc lamp globes, incandescent lamps, carbons and electrical supplies (schedule [illegible]), to be furnished to the Navy Yard at League Island, Pa.

MARTINSBURG, W. VA.—Contracts have been let for the erection of a power station at Dam No. 4 on the Potomac River, by the Martinsburg Power Co. The contract has been awarded to SCHOFF & BRUBAKER, of Lancaster, Pa., for all of the work being of concrete and dressed stone. The hydraulic machinery will be placed by B. F. GROFF, of Lancaster, Pa., and the electrical work will be done by the WARREN ELECTRICAL MACHINERY CO., of Sandusky, Ohio.

The contract for 15 miles of pole line of this city has not yet been awarded. The total cost of the plant will be about $150,000.

CHARLESTON, S. C.—Proposals are being prepared by the Bureau of Yards and Docks, Navy Dept., for issue in a few weeks, for the erection of a central power station at the Charleston Navy Yard. The building will be a fireproof structure of brick, steel and stone.

ACWORTH, GA.—See under Water-Works and Irrigation.

HUNTSVILLE, ALA.—The Muscle Shoals Power & Development Co. has been incorporated in Colbert County for the purpose of developing power from Muscle Shoals in the Tennessee River. The incorporators are S. J. Kernachan, W. J. Kernachan, G. B. Shea and J. R. Coleman. The company will build an electric power house near the shoals.

BROOKHAVEN, MISS.—The Board of Aldermen is reported to be considering the question of remodeling the water-works and electric light plant. Probable cost of improvements proposed, $30,000.

LOUISVILLE, KY.—It is reported that the Louisville & Eastern Railroad Co. will expend about $100,000 on the erection of a power house at this city. Percival Moore is V.-Pres. and Mgr.

D. X. Murphy & Bro., Archs., have taken out a building permit to erect a $40,000 addition to the plant of the Louisville Lighting Co., 14th and Magazine Sts. Work will be begun at once, and the addition is to be completed by the middle of October.

MARIETTA, OHIO.—B. S. SPRAGUE, of Marietta, has been awarded the contract for installing the new electric plant and elevator in the court house, at $4,923.

TIFFIN, OHIO.—A scheme is on foot by a company of Columbus, Pittsburg and Philadelphia capitalists, said to be backed by $1,000,000, to convert the force of the 75-ft. fall in the Sandusky River between Tiffin and Fort Seneca, into electric energy. To control the water a flume will be constructed along the river, which will lead to the power house, to be located at or near Fort Seneca.

DECKER, IND.—The $600,000 power plant and dam mentioned in issue of June 14 as being planned for Decker, Tex., will be situated at Decker, Ind. H. von Schon, Wayne County Bank Bldg., is Consult. Engr.

MONTROSE, MICH.—It is reported that the Northern Light & Power Co. has been organized, with a capital of $625,000, to develop the water power of Flint River at Montrose.

GRAND RAPIDS, MICH.—Press reports state that the Thornapple Gas & Electric Co. will expend about $200,000 in improvements.

CHICAGO, ILL.—We are officially advised that the following bids per pole were received on June 13, for transmission line poles: (a) Galvanized steel poles, (b) painted steel poles, (c) 55-ft. Michigan cedar poles, (d) same kind 60 ft. long, (e) 55-ft. western cedar poles, (f) same kind 60 ft. long: (a) Van Dorn Iron Works, Chicago, $250; U. S. Wind Engine & Pump Co., Batavia, $169 and $161; Aermotor Co., Chicago, $145 and $130; (b) Van Dorn Iron Works, $250; Franklin Rolling Mills & Foundry Co., Franklin, Pa., $128; (c) and (d) Rober & Watson, Chicago, $27 and $35, respectively; (e) and (f) Nagle Pole & Tie Co., Chicago, $17.50 and $19.50, and $22.50 and $24.50, respectively. William Artingstall, American Trust Bldg., Chicago, is Engr.

WINNETKA, ILL.—Bids are asked until 5 p. m., July 2, by Superintendent of Public Works, for installing a fuel gas plant at Winnetka. (Advertised Engineering News.)

MILWAUKEE, WIS.—The contract for building additions to the lighting plant in the county almshouse has been awarded by the County Trustees to the MILWAUKEE ENGINEERING CO., at $14,000.

FRASER, IOWA.—The Newton & Northwestern R. R. Co., N. D. Miller, St. Paul, Minn., Ch. Engr., will erect an electric plant at a cost of about $150,000.

AMES, IOWA.—BARTLETT & KLING, of Cedar Rapids, have lately been awarded contracts for the construction of Central Heating Station, Iowa State College, Ames; also County Infirmary, Macon County, Mo.

WILLISTON, N. DAK.—Bids are asked until July 9, by the U. S. Reclamation Service, H. A. Storrs, Elec. Engr., for six water tube boilers, two engines for driving pumps, two alternators, three 200-KW. transformers, three 150-KW. transformers, four 150-HP. motors, three stations and 25 miles of transmission wire.

FORT MEADE, S. DAK.—The lowest bidder on June 1 for electric fixtures, transformers, meters, lines, etc., was the Sturgis Power & Light Co., Sturgis, S. Dak., at $2,698. Major George K. Hunter is Constr. Q. M.

LAREDO, TEX.—Bids are asked until 3 p. m., July 17, by James Knox Taylor, Supervising Arch., Treasury Dept., Washington, D. C., for installing a conduit and wiring system for the U. S. Post Office, Court House and Custom House at Laredo. (Advertised Engineering News.)

MARLOW, IND. T.—The Council will contract soon for all the necessary material and equipment for an electric light plant to be installed in connection with the water-works; $25,000 will be expended in this work.

BUCKLEY, WASH.—Stone & Webster, 84 State St., Boston, will erect a power station, to cost about $1,500,000, on the White River, near Buckley. This plant, it is expected, will develop 15,000 HP.

KINGSTON, ONT.—It is stated that about $85,000 will be expended for improvements to electric light plant here. Bids not yet asked for. J. M. Campbell is Mgr.

DELHI, ONT.—Bids are asked until June 25, at the office of Quance Bros., Delhi, for constructing a concrete dam, power-house, flume, etc. John S. Fielden is Engr., 15 Toronto St., Toronto.

WINNIPEG, MAN.—On June 28 the citizens of Winnipeg will vote on the question of issuing $3,250,000 debentures for the purpose of developing and bringing into the city electric power from Point du Bois, on the Winnipeg River.

## BRIDGES.

*The names of parties awarded contracts are printed in capital letters.*

GARDINER, ME.—It is reported that bids are about to be asked for a new draw span for the Gardiner-Randolph bridge, about 120 ft. long.

FALL RIVER, MASS.—The War Department has authorized the building of a draw bridge between Fall River and Somerset, over the Taunton River. The board in charge of the work is now preparing to advertise for bids. James F. Jackson is Chn.

WESTON, MASS.—We are officially advised that Irving T. Farnham, City Engr. of Newton, is making plans for a steel and concrete bridge, to be built jointly by the city of Newton and the town of Weston.

GREAT NECK (L. I.), N. Y.—Bids are asked until 3 p. m., July 3, by the Board of Highway Commissioners for constructing a steel and concrete bridge over Udall's Mill Pond, at Great Neck. (Advertised, Engineering News.)

NEW YORK, N. Y.—The contract to build a sliding bridge over Dutch Kills Creek, a branch of Newtown Creek, Long Island City, has been awarded to the DEGNON CONTRACTING CO., 21 Park Row, builders of the Belmont tunnel, whose bid was $156,222. The work must be completed within one year.

At the meeting of the Queens local boards, held this week, a resolution was passed recommending the building of a drawbridge across Newtown Creek at Maspeth Ave.

SYRACUSE, N. Y.—Appropriation for a new lift or hoist bridge to cost $75,000 over the Oswego Canal, at North Salina St., Syracuse, has been approved by the Governor. Plans and specifications will be prepared at once. N. V. V. Franchot, Supt. Pub. Wks., Capitol, Albany, will award contract. Henry A. Van Alstyne is State Engr.

ITHACA, N. Y.—The contract to construct the Clinton St. bridge over Six Mile Creek, which was washed away nearly a year ago, is stated to have been awarded by the Common Council to the UNITED CONSTRUCTION CO., of Albany. The 86-ft. girder bridge complete, with its abutments and approaches, will cost $6,118.

PHILADELPHIA, PA.—On a bid of $5,150 the NEW JERSEY-WEST VIRGINIA BRIDGE CO. has been awarded the contract to build a steel bridge over the Rancocas Creek at Pemberton.

BROOKVILLE, PA.—Bids are asked until June 28, by the Board of County Commissioners, A. E. Gailbraith, Clk., for building or rebuilding the substructure and superstructures of seven bridges in this county.

WASHINGTON, D. C.—Bids were opened June 16, at the office of the District Commissioners, Washington, for construction of four concrete steel highway bridges. The bids were: Stewart & Stratton, 110 Massachusetts Ave., Washington, $3,340; Cranford Paving Co., 2620 E St., N. W., Washington, $3,903; R. J. Beall Construction Co., 1217 F St., N. W., Washington, $4,195.

CHARLESTON, W. VA.—A $75,000 bridge will be constructed across Elk River by the traction company, the city and the county. W. A. Hogue is City Engr.

FORT BARNWELL, N. C.—Craven County Commissioners have decided to build an iron bridge across the Neuse River near Fort Barnwell and Maple Cypress. C. E. Foy is Chn.

BEAUFORT, S. C.—Bids are asked until July 2 for construction of a steel bridge near Beaufort. W. F. Sanders is Superv. of Beaufort County.

TAMPA, FLA.—The Tampa Northern Ry. has let contract for a $40,000 steel bridge to span the Hillsboro River.

VICKSBURG, MISS.—Bids are asked until noon, July 4, by the Clerk of Chancery Court of Warren County, for erecting a steel bridge at Haynes Bluff, and for removing the present steel bridge at Haynes Bluff to Byrnes Place. J. D. Laughlin is Clk.

HATTIESBURG, MISS.—Contract for a steel bridge over Bogue Homa River, in this county, has been let by the Board of Supervisors to the CONVERSE BRIDGE CO.

CLEVELAND, OHIO.—J. H. KIETH & CO., of Manitowoc, Wis., have been awarded a contract to build concrete and cement bridges and culverts for the Cleveland Belt Line Co., of Cleveland, Ohio, at $145,000.

YOUNGSTOWN, OHIO.—The Youngstown & Southern R. R. Co. has awarded the contract for the concrete arch bridge at South Ave. to GEORGE J. VETTER, of Youngstown.

PORTSMOUTH, OHIO.—Bids are asked until July 16 for a steel or iron bridge with a 126-ft. span at Henley, Scioto County, and one with an 80-ft. span over Little Scotch River. F. N. Tynes is Audr. Scioto County.

LA PORTE, IND.—Bids are asked until 10 a. m., June 23, by the Commissioners of La Porte County, for constructing a concrete box culvert. Charles H. Miller is County Audr.

SOUTH BEND, IND.—We are officially advised that the MARSH BRIDGE CO., Des Moines, Iowa, has contract for building Melan arch bridges at La Salle Ave., and Bridge St., at $84,750 and $81,100. The LA FAYETTE ENGINEERING CO., Lafayette, Ind., has been awarded the contract for sub and superstructure of plate girder bridge at Bridge St., at $17,889. A. J. Hammond is City Engr.

DETROIT, MICH.—The John Ginzel Co. was the lowest bidder, at $4,800, for construction of the west half of the protection pier at the draw span of the Belle Isle bridge. The Chandler Dock & Bridge Building Co. bid $5,695, and the A. J. Dupuis Co. $5,823.

ROCKFORD, ILL.—Plans are being prepared by S. B. Hand for the Auburn St. bridge, to be built by the city over Kent Creek. Bids will be advertised for soon and the bridge constructed this year.

OTTAWA, ILL.—A 90-ft. concrete arch bridge, 30 ft. wide, is under consideration. It is estimated that the bridge required will cost $75,000.

AUGUSTA, WIS.—Bids are asked until June 25, by the Common Council for constructing either a steel or stone or a combination of concrete and steel bridge across Henning's Run. W. W. Johnston is City Clk.

IOLA, WIS.—Bids received for constructing stone arch bridge across North and South Channels were: Hans Kolden, Iola, $2,749; Loodahl, Nerstad & Co., Iola, $3,500.

FORT DODGE, IOWA.—The GOULD CONSTRUCTION CO., of Davenport, has been awarded contract for erection of eight concrete bridges on the Illinois Central between Fort Dodge and Omaha, and two bridges near Memphis, Tenn., at $50,000.

SIOUX CITY, IOWA.—A bridge across the Missouri River, at Sioux City, will be built by the Burlington and the Great Northern railroads.

MANKATO, MINN.—The County Auditor has been directed to advertise for bids for constructing a concrete bridge across Minneopa Creek, near Minneopa station, bids to be opened in July.

MITCHELL, S. DAK.—Bids are asked until 1 p. m., July 7, by O. D. Stearns, County Audr., for erecting a steel bridge, 60 ft. long and with 16-ft. approaches at each end.

ST. LOUIS, MO.—The city has voted to issue $3,500,000 in bonds for a municipal bridge across the Mississippi River.

LIBERTY, MO.—Kansas City, St. Joseph & Excelsior Springs Ry. Co., Joseph J. Heim, Pres., Kansas City, Mo., will build a bridge costing $800,000, for steam and electric cars and vehicles at the foot of Main St. or Delaware St.

SILOAM SPRINGS, ARK.—A steel bridge is to be built here to span Lager Creek.

TEXARKANA, ARK.—It is proposed to build a steel and concrete viaduct over the yards of the Iron Mountain Ry. at Texarkana. It will cost about $35,000, and be a quarter of a mile long.

VERNON, TEX.—H. MITCHELL, of Weatherford, has secured the contract for construction of a bridge to be built across the Pease River. The structure will be 1,540 ft. long, and will be erected at the cost of $29,800.

MINCO, IND. T.—The Chicago, Rock Island & Pacific R. R. Co. will construct a steel bridge over the Canadian River at a cost of $1,000,000. A. C. McCall is Div. Supt., Chickasha, Ind. T.

MELMONT, WASH.—The NORTHWEST BRIDGE CO., Tacoma, has contract for building a 168-ft. bridge across Carbon River at Melmont. Cost, $6,125. I. M. Howell is County Audr.

CLARKSTON, WASH.—A bridge to cost about $300,000, on the site of the old bridge at Clarkston, will be built by the Oregon R. R. & Navigation Co.

GONZALES, CAL.—The BURRELL CONSTRUCTION CO., of Oakland, has been awarded contract for building the Gonzales bridge, at $8,400.

HAWKSHAW, N. B.—The Commissioner of Public Works is reported to have said that the Department will build a bridge over the St. John River, from Hawkshaw to Pokiok. It is estimated that the bridge will cost $75,000.

LONDON, ONT.—The County Council, Plovers' Mills, Ont., will erect a new bridge at a cost of about $10,000.

CHATHAM, ONT.—Bids are asked until noon, June 30, by J. W. Thackleton, for erecting four steel pile and trestle rivet connected bridges, from 70 to 90 ft. long.

RAINY RIVER, ONT.—The contract for a $50,000 steel and concrete bridge at Pithers Point, has been awarded by the Duluth, Virginia & Winnipeg Ry. Co. to the RAINY RIVER BRIDGE CO.

WINNIPEG, MAN.—The City proposes to build a bridge to connect Winnipeg with North Winnipeg. The bridge will have two street car tracks, a 24-ft. roadway and two 6-ft. sidewalks, the latter to be held by brackets outside of the trusses. The roadway will be paved with wooden blocks. Estimated cost, $270,000. H. N. Ruttan is City Engr.

PORTAGE LA PRAIRIE, MAN.—D. S. SANDS, of Westbourne, Man., has contract awarded by the Grand Trunk Pacific for construction of all bridges and culverts between Portage la Prairie and Pine Creek.

BRANDON, MAN.—Plans and specifications for proposed bridge at Brandon, as advertised, are on file at the offices of Engineering News, New York and Chicago. Bids are asked until July 13. W. H. Shillinglaw is City Engr.

SASKATOON, SASK.—A new bridge, 950 ft. long, will be erected over the South Saskatchewan River, at Saskatoon, for which plans have just been completed.

PRINCE ALBERT, SASK.—Bids are asked by the Provincial Attorney General for substructure of a concrete bridge, to cost about $50,000, to span the North Saskatchewan River at this town. The bids for superstructure will be asked for in July.

## BUILDINGS.

*The names of parties awarded contracts are printed in capital letters.*

BEVERLY, MASS.—Contract for building a new high school building here has been awarded to J. W. DUSS, of Auburndale, at about $100,000.

WORCESTER, MASS.—According to reports in the daily press, it is being planned by the New York Central, the Boston & Maine, and the New York, New Haven & Hartford Ry. companies to build a union station at Worcester. The new building will be constructed as soon as plans are ready.

QUINCY, MASS.—Plans are ready for a 12-room school, 167 × 48 ft., to be erected at a cost of $63,000.

THOMPSON, CONN.—Jacob Turtellout, of Minneapolis, Minn., a native of Thompson, will build an academy here at a cost of $100,000.

GREENVILLE, CONN.—The Consolidated Railway Co. is to build a large car barn in Greenville capable of housing all the cars of the Norwich street railway and the other trolley roads in that vicinity under Consolidated management. The barn is estimated to cost from $100,000 to $125,000, and will cover the square between Central Ave., North Main St. and 13th St.

NEW YORK, N. Y.—Bids were opened June 12 at the Office of James Knox Taylor, Supervising Arch., Treasury Dept., for the installation of a freight elevator, plunger hydraulic type, in the U. S. Court-house and Post Office at New York. Bids were: Standard Plunger Elevator Co., New York, $15,145; Marine Engine & Machine Co., New York, $13,630; Otis Elevator Co., New York, $8,790.

Bids are asked until 11 a. m., June 25, by C. B. J. Snyder, Supt. of School Buildings, for alterations and repairs to 22 school buildings in the Borough of Brooklyn; repairs at Public School No. 6, Borough of the Bronx; installing heating apparatus in Public School No. 28, Borough of the Bronx; repairs to 17 schools; installing electric equipment in Public School No. 81, and alterations to Girls' Technical High School, Borough of Manhattan.

Bids have been received by C. B. J. Snyder as follows: (a) General construction of additions to Public School No. 4; (b) repairs to Public School No. 109; (c) installing heating and ventilating apparatus in Stuyvesant High School; (d) heating and ventilating apparatus in Public School No. 65. Thos. Cockerill & Son, 147 Columbus Ave., (a) $52,651; Geo. Hildebrand, 38 Park Row, (a) $55,744; Philip Wolff & Son, Staten Island, (a) $54,878; Jas. McArthur, 22 Ormonde Place, Brooklyn, (a) $51,597; Wm. Home, 245 West 26th St., (b) $29,470; P. Kiernan, Williamsbridge, (b) $25,200; James Alhausen, 38 Park Row, (b) $28,484; A. & W. Grey & Co., 237 West 37th St., (b) $21,835; James Hamilton, 83 West 118th St., (b) $25,000; Martin Tully, (b) $27,480; Frank Dobson, 319 East 53d St., (c) $113,940, (d) $54,000; E. Rutzler Co., 127 White St., (c) $109,871, (d) $55,077; Blake & Williams, 211 West 20th St., (c) $112,565, (d) $54,900; Evans, Almiral & Co., 281 Water St., (c) $106,974, (d) $54,737; Rossman & Bracken Co., 11 East 22d St., (d) $57,000.

Bids received June 12 by the Fire Commissioner for the construction of a fire house on 63d St., near Amsterdam Ave., were as follows: P. Gallagher, 1189 Broadway, $75,363; Geo. Hildebrand, 38 Park Row, $79,400; P. J. Ryan, 314 West 44th St., $84,923; John H. Parker Co., 225 Fourth Ave., $85,945; Thos. B. Leahy Bldg. Co., 1 East 42d St., $73,300; Thos. Cockerill & Son, 147 Columbus Ave., $81,500.

It is reported that land has already been secured at a cost of $800,000, and Bird S. Coler, Boro. Pres., has asked an appropriation of $2,000,000, for the construction of what is planned to be the largest market house in the world in South Brooklyn. There will be 150 stores, each 20 × 60 ft., all of fireproof construction, equipped with all sanitary conveniences, and supplied with light, power and cold air from an incinerator plant, which will burn all of the refuse. It is estimated that the cost of the improvement will be $2,057,282, which will bring in an estimated net revenue of $125,000 a year.

CHARLES A. COWAN & CO., 1123 Broadway, have the general contract to build at 244 to 250 West 49th St. an 8-story fireproof warehouse and loft building, 80 × 90 ft., estimated to cost $125,000. Edmund C. Coffin, 34 Pine St., is owner, and Hill & Stout, 1123 Broadway, are Archs.

Frederick C. Zobel, Arch., 114-116 East 28th St., is preparing plans for a 7-story office and studio building of fireproof construction, to be erected at 30 and 32 East 20th St.

BUFFALO, N. Y.—The New York Central & Hudson River R. R. Co. has awarded a $1,000,000 contract for the building of extensive freight yards, sheds, engine houses and round-houses at Gardenville, three miles beyond the city line. The contract covers work which can be done this year, and which is expected to be finished before winter. This is the Central's first great step in shaping its affairs for the East Buffalo Union Station it proposes to build. R. A. Cunningham is Resident Engr.

POUGHKEEPSIE, N. Y.—Bids are asked until 3 p. m., June 27, by the State Commission in Lunacy, for a building at the Hudson River State Hospital. T. E. McGarr, Albany, is Secy.

SCHENECTADY, N. Y.—Bids are asked until 2 p. m., June 28, by the Board of Contract and Supply, for the erection of three 12-room school buildings. C. O. Dunning is Clk. (Advertised, Engineering News.)

PHILADELPHIA, PA.—Andrew J. Sauer, Arch. and Engr., and Frank M. Hahn, Engr., will have plans completed soon for a reinforced concrete Yiddish Theatre, 60 × 140 ft., to be erected at 5th St. and Locust St.

WILLIAM R. DOUGHERTY has been awarded the contract by W[illegible]on, Harris & Richards, Archs., for the erection of the new banking house for the Girard Avenue Title & Trust Co., at the northwest corner of 18th St. and Girard Ave.

Carl P. Berger, Arch., has awarded a contract to JOSEPH F. MEYERS for the erection of a new 4-story brick factory and store building at 136 North Fifth St., 30 × 80 ft., for Harry Wihenmayer.

Plans are being prepared by Savery, Sc[illegible]eetz & Savery, Archs., Stephen Girard Bldg., for a 3-story brick and stone garage, 40 × 100 ft., to be erected at 207 North Broad St., for T. A. B. Jeffries & Co., at a cost of about $50,000.

PITTSBURG, PA.—Alden & Harlow, Archs., Farmers' Bank Bldg., have been selected to design the Newsboys' Home Building in Forbes St. Cost, $100,000. Thomas J. Keenan, Farmers' Bank Bldg., is interested.

WEST CHESTER, PA.—Baker & Dallett, Archs., 1420 Chestnut St., Philadelphia, are preparing plans for a 2-story fireproof addition to the County Hospital, to cost $50,000.

Harry J. Mees is having plans prepared for a reinforced concrete bakery, 80 × 180 ft., to be erected at the corner of Thompson and Hutchinson Sts. It will be two stories high and cost about $100,000.

The Supervising Architect of the Treasury has awarded to the JOHNSON SERVICE CO., 1510 Sansome St., Philadelphia, contract for installing the Johnson temperature regulation system in the Custom House at Baltimore.

A site has been purchased by a hotel syndicate at the corner of Pennsylvania Ave. and 14th St., and a brick, stone and terra cotta hotel, to be known as the Hotel Warwick, 10 stories, 35 × 150 ft., will be erected. The owners, among whom are Messrs. Chris. Heurich and John L. Newbold, may be addressed care of R. T. Warwick, Washington.

MOUNT AIRY, PA.—F. L. Hoover & Sons, Inc., have plans from Watson & Huckle, Archs., for a 2-story stone library, to be known as the Krauph Memorial Library, 130 × 90 ft., for the Lutheran Theological Seminary at Mount Airy. The structure will be finished in hard wood, and have a large stone tower. It will cost about $100,000.

PITTSBURG, PA.—F. H. FULMER, 413 Fourth Ave., has been awarded the contract for erecting the $125,000 brown stone edifice for the Third United Presbyterian congregation at Shady and Northumberland Aves. J. A. Long, Park Bldg., is Arch.

Cram, Goodhue & Ferguson, Archs., 15 Beacon St., Boston, Mass., have awarded the contract to HOWARD HAGER, Lloyd Bldg., Pittsburg, for building the Calvary Episcopal Church at Shady Ave. and Walnut St. Cost, $300,000.

WASHINGTON, D. C.—Bids were opened June 18, at the Office of Bernard R. Green, Supt. of the Library of Congress, Washington, for the streel construction work on the second, third and attic floors and roof of the new National Museum Bldg., Washington, D. C. The bids were: Phoenix Iron Co., Philadelphia, $164,700; Penn Bridge Co., Beaver Falls, Pa., $163,240; American Bridge Co., New York, $148,000; Lewis F. Shoemaker, Harrison Bldg., Philadelphia, $163,900.

Bruce, Price & De Sibour, Archs., of New York, have been awarded the commission for drawing the plans for the new office building to be erected by W. B. Hibbs & Co., brokers, on 15th St., between New York Ave. and H St., N. W. The building will be a fireproof structure, ten stories high, 37½ × 100 ft., and the total cost will be $250,000.

ALEXANDRIA, VA.—A stock company, capitalized at $125,000, and headed by J. M. Hill and M. B. Harlow, plans the construction of an apartment house to cost $125,000. Plans have been prepared by H. J. Blauvelt, of Washington.

CHAPEL HILL, N. C.—The University of North Carolina will erect a $75,000 library, and have commissioned the Frank P. Milburn Co., Archs., Home Life Bldg., Washington, D. C., to prepare the plans.

NEW ORLEANS, LA.—It is reported that the Real Estate Exchange plans the erection of an office and exchange building, to cost $75,000.

MONROE, LA.—The County Supervisors have approved designs submitted by the Frank P. Milburn Co., Archs., Home Life Bldg., Washington, D. C., for the new $30,000 County Jail. Plans will be ready about Sept. 1st.

MEMPHIS, TENN.—The SELDEN-BRECK CONSTRUCTION CO., St. Louis, Mo., has been awarded the contract for building the 7-story addition, 104 × 56 ft., to the Gayosa Hotel at Memphis, at about $200,000. It will be of fireproof construction. The NOELKE-RICHARDS IRON WORKS, Indianapolis, Ind., have been awarded the contract to furnish the structural steel and ornamental iron. Shaw & Pfiel, Memphis, Tenn., are Archs.

The contract for building the new home for the Memphis Business Men's Club, at 87 and 89 Monroe St., has been awarded OLSON & LESH, at about $110,000.

WHITESBURG, KY.—Bids are asked until July 6, by Letcher County Court, for the erection of a jail and jailer's residence. H. T. Day is Comr. A. J. Sturgill is Clk.

COVINGTON, KY.—Leon Coquard, Arch., 169 First St., Detroit, Mich., has prepared plans for enlarging the cathedral of St. Mary's Roman Catholic Church at Covington, Ky., including two towers 169 ft. high, to be constructed at Bedford, Ind., limestone. Improvements will cost $100,000.

ATHENS, OHIO.—The contract for the erection of the new school building, for which purpose the town recently issued bonds in the sum of $60,000, was let to GEORGE FENZEL, of Athens, at $50,436. Van Leyen & Schilling, 47 Peninsular Bank Bldg., Detroit, are Archs.

CINCINNATI, OHIO.—The Guarantee Title & Trust Co. intends erecting a 5-story concrete warehouse at Sixth St. and Broadway. It is stated that plans are to be prepared by a local architect, and the cost is to be about $200,000.

CLEVELAND, OHIO.—J. A. REAUGH & SON, Garfield Bldg., have been awarded the general contract for erecting the 3-story warehouse, 210 × 254 ft., for the National Malleable Casting Co., on Platt St. J. M. Dyer, 825 Cuyahoga Bldg., is Arch.

EVANSVILLE, IND.—Bids are asked until noon, June 30, 1906, for the construction of the New Vendome Hotel. The building will cost $150,000. F. J. Scholz is Pres. and F. J. Schlatter, Arch.

CULVER, IND.—Culver Military Academy's gymnasium, recently destroyed by fire, will be rebuilt at a cost of $50,000.

William H. Pruyn, Jr., & Co., Archs., 4217 Berkeley Ave., are taking figures on an apartment building to be built on Lakeside Ave., between Sheridan Road and Lake Michigan, for G. A. Jaesecke. It will be 3 stories, 150 ft. square, and cost $150,000.

The Armour Elevator Co., 205 La Salle St., will rebuild grain elevator D at 23d and Fisk Sts., which was totally destroyed by fire May 30. It was built six years ago at a cost of $500,000.

GROSSE POINTE, MICH.—Albert Kahn, Arch., 1117 Union Trust Bldg., Detroit, Mich., has awarded contracts for a clubhouse for the County Club, James C. Smith, Secy., 218 Hammond Bldg. Detroit, as follows: Masonry, FRANK N. COOPER, 12 Peninsular Bank; carpentry, MALOW BROS., 1194 Mt. Elliott Ave.; structural steel, RUSSEL WHEEL & FOUNDRY CO., Joseph Campau Ave., and Michigan Central Railroad. Cost, $60,000.

CASEY, ILL.—See under Water-Works and Irrigation.

CHICAGO ILL.—Bids are asked until 3 p. m., July 10, by James Knox Taylor, Superv. Arch., Treas. Dept., Washington, D. C., for alterations to the U. S. Post-office, Courthouse, etc.

JOHN CHRISTENSEN, 845 East 69th St., has the mason contract and WARNER CONSTRUCTION CO., 112 Clark St., the carpenter contract for an addition to be built to an infirmary on Peoria St., north of Adams St., for the Illinois Charitable Eye and Ear Infirmary. It will be three stories, 100 × 50 ft., and cost about $50,000. W. Carbys Zimmerman, 17 Van Buren St., is Arch.

Schock & Swanson, Archs., First National Bank Bldg., 164 Dearborn St., let the general contract to the KAVANAGH BROS. CO., 321 South Park Ave., Austin, for a Catholic school-house to be built at 5915 to 5919 West Lake St. It will be three stories, 69 × 136 ft., and cost $50,000.

W. Carbys Zimmerman, Arch., Steinway Hall Bldg., 17 Van Buren St., let the general contract to the WELLS BROS. CO. Monadnock Block, for a manufacturing building to be built at Lauretto Court and Van Buren St., for the Chicago Automatic Telephone Co. It will be six stories, 116 × 166 ft., and cost $175,000.

Egan & Prindeville, Archs., 85 Dearborn St., let the steel work to HANSELL ELCOCK & CO., 251 23d Place, for a church to be built at Humboldt St., near Palmer Ave., for St. Sylvester Roman Catholic Church. Rev. Michael O'Brien, pastor.

Montgomery Ward & Co. have under way plans for the erection of what is expected to be the largest building for commercial purposes in the world. It is to be built on the north branch of the Chicago River at Chicago Ave., and will have a floor space of approximately 50 acres. Present plans call for a structure nine stories high, with a basement affording access to a subway. It is to be 900 × 270 ft. and of steel and concrete construction. R. E. Schmidt is Arch.

DES MOINES, IOWA.—Bids for the installation of an electric passenger elevator in the U. S. Court House and Post Office were: Otis Elevator Co., New York, $5,380; Marine Engine & Machine Co., New York, $5,783.

W. J. Zitterell, of Webster City, Iowa, submitted the lowest bid for erecting the 4-story addition to the Utica Clothing Store at about $60,000.

MINNEAPOLIS, MINN.—Harry W. Jones, Arch., has plans prepared for a building, 170 × 330 ft., nine stories, for Butler Bros.

The Baltimore apartment house will be erected for W. P. Cockey, at a cost of $200,000, from plans prepared by Lowell A. Lamoreaux, Arch.

GARDEN CITY, KANS.—Bids are asked until July 10 at the office of Reclamation Service at Garden City, Kans., for the construction of a combined office and residence building in connection with the Garden City project. Particulars may be obtained from the engineer at Garden City.

ST. LOUIS, MO.—The Racquet Club, it is reported, has accepted plans prepared by Mauran & Hardner for a $90,000 club-house. Judge Daniel C. Taylor is Pres.

The SOUTHERN CONSTRUCTION CO., World's Fair Grounds, it is stated, has secured the contract to erect the 17-story building for the Income Leasehold Co., at Fourth and Chestnut Sts., to cost $1,165,000.

The contract for the erection of the new $125,000 Liederkranz club-house, corner of Magnolia St. and Grand Ave., was awarded to ALBERT H. HAESLER. Helfensteller, Hirsch & Watson are Archs.

SPRINGFIELD, MO.—Bids for the installation of an electric passenger elevator in the U. S. Court House and Post Office building at Springfield were as follows: Otis Elevator Co., St. Louis, Mo., $3,845; Marine Engine & Machine Co., New York, $4,306.

HOT SPRINGS, ARK.—A. B. Jennings, 82 Wall St., New York, and R. P. Morrison, Hot Springs, are associate architects for a $50,000 church to be erected at Olive and Central Aves. by the Central Methodist congregation.

LITTLETON, COLO.—The contract for the construction of the $100,000 residence at Littleton for Col. George S. Newman, has been let to HONEYMAN & AULD, of Colorado Springs. The N. W. HAAS PLUMBING & HEATING CO., Colorado Springs, has the plumbing contract.

DENVER, COLO.—Bids were opened June 12 at the office of James Knox Taylor, Superv. Archt., Treas. Dept., for the installation of an electric passenger elevator in the U. S. Post Office Building at Denver, Colo. The bids were: Otis Elevator Co., New York, $5,985; Marine Engine & Machine Co., New York, $6,465.

The Excelsior Club, an organization of physicians, will erect a 6-story office building at a cost of $50,000.

TACOMA, WASH.—It is reported that the Bethel Investment Co. has secured a site and will erect a 4-story family hotel to cost $75,000.

SAN FRANCISCO, CAL.—One of the first permanent buildings to be erected after the fire will be a 4-story and basement store which will be erected by Morton L. Cook on the corner of Second and Minna Sts. It will be 50 × 100 ft., and of reinforced concrete. The building will be provided with two fast-running elevators. It is expected to cost $50,000. Ralph Warner Hart is Arch.

W. Friedman has plans prepared for the erection of a 10-story steel structure on Bush and Kearney Sts. It will cost about $180,000. Chas. Pfaff is Arch.

The Boyd Estate has awarded a contract to FRANK B. GILBRETH for the construction of a reinforced concrete structure at Drumm and Clay Sts. Cost, about $125,000. Nathaniel Blaisdell is Arch.

Herbert V. Ready has leased the site at Market and Eleventh Sts. and will erect a building, 225 × 275 ft., at a cost of $60,000.

The Western Real Estate Co. will erect a 16-story building, 30 × 80 ft., at the corner of First and Market Sts.

The Sharon Estate, owner of the Palace Hotel property, has decided to rebuild the hotel, preserving all of the features which made the old building famous. The cost will be $3,700,000.

George S. Fife will erect a 10-story building at Pine and Kearney Sts. The FERRO-LITE CONSTRUCTION CO. has the contract, at about $197,000.

A bill providing $500,000 for a State building at San Francisco has passed the Legislature.

MONTREAL, QUE.—It is reported that Carsley & Co. will erect a 7-story department store, 280 × 160 ft., at a cost of $1,500,000.

Hutchinson & Wood, Archs., have let contracts to PETER LYALL & SONS, Montreal, for the construction of a 10-story addition, 120 × 95 ft., to the Hotel Windsor. Estimated cost, $750,000.

OTTAWA, ONT.—It is reported that the Government will erect a block, 230 × 100 ft., four stories, at Sussex St. and Mackenzie Ave., at a cost of $1,500,000.

FORT WILLIAM, ONT.—The Oglivie Milling Co. will erect a steel tank elevator, 150 × 100 ft., 150 ft. high. The MAC DONALD ENGINEERING CO., of Chicago, has the contract.

TORONTO, ONT.—Wickson, Gregg & Chapman, Archs., 59 Yonge St., have plans prepared for a 3-story library, 500 × 400 ft., which the city will build at a cost of $300,000.

WINNIPEG, MAN.—Contract has been awarded to KELLY BROS. & MITCHELL, of Winnipeg, for the erection of a grain exchange, seven stories, 129 × 127 ft., for the Grain Exchange Co., at $452,885. Darling & Pearson are Archs.

EDMONTON, ALTA.—It is reported that contracts will be let soon for a 4-story legislative building, 200 × 260 ft., which will be erected by the city and government at a cost of $1,000,000.

## WATER SUPPLY—IRRIGATION.

*The names of parties awarded contracts are printed in capital letters.*

BRAINTREE, MASS.—Bids are asked until 3 p. m., July 2, by the Water Commissioners for laying about 8,600 ft. of 8-in. c.-i. water pipes, setting hydrants, etc. (Advertised, Engineering News.)

NORTH CHELMSFORD, MASS.—It is reported that the citizens have voted $50,000 for a district water system, and that Geo. C. Moore, Dr. F. E. Varney, and Jas. E. Dunnigan were selected as Water Comrs.

LAKEVILLE, CONN.—We are officially advised that the Lakeville Water Co. has awarded the contract for building a dam and reservoir, and for replacing 4 and 6-in. pipe with 6 and 8-in. pipes, respectively, to D. CUOZZO, of 150 Nassau St., New York, N. Y. The dam will have earth embankment with concrete core; it will be 24 ft. high and 300 ft. long.

YONKERS, N. Y.—We are officially informed that R. D. HOOD & CO., of Philadelphia, has been awarded contract for 4, 6, 8 and 12-in. pipe, at $32.80 a ton for each. A. W. Kingsbury is Clk.

SENECA FALLS, N. Y.—Joseph B. Rider, of South Norwalk, Conn., has been engaged by the Water Commissioners to prepare plans for the municipal water-works plant about to be installed in this village. W. J. Gould is Chmn.; E. L. Guion is Clk.

NEW YORK, N. Y.—The bids received on June 13, by J. A. Bensel, Comr. of Docks, for installing salt water service at the St. George Ferry Terminal, were as follows: Frank Dobson, 319 East 53d St., $30,656; Leslie McHarg & Co., 299 Broadway, $26,440; E. Rutzler Co., 127 White St., $25,321; Monad Engineering Co., $26,988.

The following bids were received June 13 by William B. Ellison, Comr. Dept. Water Supply, Gas and Electricity, for laying water mains in Boscobel, College, Grand, Lind, Perry, River, Sheridan and Whitlock Aves., Barretta, Jennings, Kelley, Longfellow, Tiffany, 151st, 166th, 167th, 168th and 205th Sts., and Woodlawn Road: Clinton Beckwith 49 West 27th St., $125,505; Tucillo & Co., 195 Grand St., $117,371; L. D. Gregory, 125th St. and First Ave., $112,535; Atlanta Cont. Co., 432 East 91st St., $133,647; M. O'Brien, 510 East 119th St., $124,590; P. Goodman, 1868 Park A[illegible] $135,249; [illegible] Dambra & Co., 205th St. and [illegible]a Ave., $121,100 (incomplete); Charles [illegible] Parker, informal; John Cornwell, Jr., [illegible] st 127th St., $124,433; Culgin-Pace Co[illegible]ng Co., 781 Tremont Ave., $145,586.

SILVER CREEK, N. Y.—T[illegible]llage of Silver Creek is to begin at [illegible] the construction of a reservoir with a [illegible]acity of 15,000,000 gallons. It will be [illegible]ted on Silver Creek a short distance a[illegible] the village of Smith's Mills. The dam [illegible] be 88 ft. long, 15 ft. wide and 12 ft. [illegible] at the base. The work will be done i[illegible]nection with the Lake Shore Ry.

ALTOONA, PA.—Bids are [illegible] until noon, Aug. 2, by the Board of [illegible] Commissioners, F. C. Gerhardt, [illegible] C. B. Campbell, Secy., for constructi[illegible] storage reservoir on Burgeons Run. [illegible]rtised, Engineering News.)

EAST McKEESPORT, PA.—It [illegible]ported that the East McKeesport Wa[illegible]o. has been organized to construct a re[illegible]r near Walls, with a capacity of 10,[illegible] gallons.

LANCASTER, PA.—Bids are [illegible] until noon, July 19, by the Water Co[illegible]ee for building concrete dam and piers [illegible]umping station. F. W. Shaw is Engr., [illegible] Woolworth Bldg.; John A. Leinbach is [illegible] Water Com. (Advertised, Engineering N[illegible])

WASHINGTON, D. C.—Bids are [illegible]d until noon, July 7, by the Commi[illegible]ts for furnishing water valves. Henry [illegible] Macfarland is Comr. (Advertised, Engineering News.)

NORFOLK, VA.—We are officially advised that the bids received for laying wa[illegible] mains to the Jamestown Exposition grou[illegible] were as follows: Henry Mark, $69,712; [illegible]thern Contracting Co., $69,952; Sands & Lawson, $69,401; George O'Tenny, $66,361; MARKS & FERGUSON, $61,445 (recommended to the Councils to be accepted); William A. Young, $78,563; Dentz Grading Co., $81,007. All the firms given above are of Norfolk. James F. Reid is Registrar.

LOURINBURG, N. C.—Bids are asked until July 7 for about 4½ miles of 4, 6, 8, 10 and 12-in. water mains, and about four miles of 8, 10, 12 and 15-in. sewers. Estimated cost, $10,000.

CHARLESTON, S. C.—The Charleston Light & Water Co., it is reported, will build a dam across Goose Creek.

VIENNA, GA.—Arthur Pew, Consult. Engr., Atlanta, Ga., is preparing plans for construction of proposed water-works, for which $20,000 is available. B. F. Forbes is Chm. Bd. of Comrs.

ACWORTH, GA.—The city has voted to issue $23,000 of bonds for installing a system of water-works and an electric light plant.

BATON ROUGE, LA.—We are officially advised that the City Council has adopted the plans and specifications of the O'Neil Engineering Co., of Dallas, providing for a 10-in. water main belt around the city and a municipal water plant, with stand-pipe, reservoirs, pumps for fire pressure, etc., and ordered the water and light committees to advertise for bids.

NEW ORLEANS, LA.—Bids are asked until 3 p. m., Sept. 5, for furnishing and erecting two complete water purification plants, one with 40,000,000 gallons capacity and one with 4,000,000 gallons capacity. F. S. Shields is Secy.; George G. Earl is Gen. Supt. (Advertised, Engineering News.)

JASPER, TENN.—W. Q. Dinnwoody will establish a water-works plant here, to be in operation by Sept. 1.

PARIS, KY.—Newton Mitchell, Supt. W.-Wks., system here will soon commence the extension of the water mains in Main and Cypress Sts.

FAIRMOUNT, OHIO.—The Water-Works Commissioners of Cincinnati have been granted permission for the erection of the Western Hills Pumping Station in Fairmount, at a cost of $52,000.

AKRON, OHIO.—It is reported that state engineers are surveying the site of a reservoir, which it is intended to build between Long Lake and State Mill. Charles E. Perkins is Ch. Engr.

CINCINNATI, OHIO.—A pump with a daily capacity of 7,500,000 gallons is to be installed at the Front St. station, Cincinnati. Charles N. Danenhower is Ch. Engr. Bd. of Pub. Wks.

NEW PHILADELPHIA, OHIO.—Bids are asked until noon, July 14, by the Board of Public Works, for a pipe system for water-works. Paul R. Murray is Engr.

COLUMBUS, OHIO.—Bids are asked until noon, July 18, by the Board of Public Service, E. F. McGuire, Secy., for constructing pumping station and intake. Henry Maetzel is Ch. Engr., Bd. Pub. Service. (Advertised, Engineering News.)

FORT WAYNE, IND.—Bids are asked until June 26, by H. W. Becker, Clk., for laying about 3,100 ft. of c. i. water mains.

GEORGETOWN, IND.—A company has been organized in Georgetown, with a capital of $10,000, to install a system of water-works.

CASEY, ILL.—Bids are asked until 8 p. m., June 25, by the City Council, H. B. Sturdevant, Clk., for constructing a complete system of water-works, including 80,000-gallon water tower, also for constructing sewer system, and for paving and a city building. (Advertised, Engineering News.)

RANDOLPH, WIS.—Randolph has voted to bond the city for $6,000 for a water-works plant. The system will be gradually extended until the whole city has fire protection.

MINOCQUA, WIS.—It is reported that the citizens have voted to issue $5,500 of bonds for water-works. W. H. Fisher is Town Clk.

CARROLL, IOWA.—RICH & LEN[illegible], of Carroll, have been awarded, by the city, the contract for laying about 3,500 ft. of water mains.

SPENCER, IOWA.—We are officially advised that contract will soon be let for a 70,000-gallon steel tank about 100 ft. high. R. Z. Taylor is Clk.

CANEY, KANS.—Plans and specifications are being prepared for the water-works system to be installed at Caney for which the Council has voted $25,000.

LEIGH, NEBR.—Bids are asked until 6 p. m., July 2, by the Village of Leigh, R. J. McNary, Clk., for constructing water-works system.

BILLINGS, MONT.—Bids are asked until 2 p. m., Aug. 7, by the U. S. Reclamation Service, E. A. Hitchcock, Secy., for constructing a pumping plant, to be located near Ballantine Station, on the Chicago, Burlington & Quincy Ry. (Advertised, Engineering News.)

GLASGOW, MONT.—Bids are asked until 2 p. m., Aug. 1, by the Municipality, J. J. Mullins, Clk., for constructing a complete water-works system. A. W. Mahon is City Engr.

SEDALIA, MO.—The Sedalia Water & Light Co. is planning to rebuild the water plant at a cost of $100,000.

LAKE VILLAGE, ARK.—It is reported that a system of water-works will be established here.

ROCKY FORD, COLO.—The WEBER GAS ENGINE CO., of Kansas City, Mo., has been awarded the contract for installation of the new city pumping plant at the water-works.

TRINIDAD, COLO.—Bids are asked until 2 p. m., July 2, by I. D. Milliken, City Clk., for constructing 24 miles of pipe line or conduit. (Advertised, Engineering News.)

BRECKENRIDGE, COLO.—Plans are being made for two reservoirs, one 20 miles from Breckenridge, and the other 35. The first one will be 200 ft. high, will contain 5,000,000,000 cu. ft. of water, and will cost $500,000. The second will be 200 ft. high, will contain 3,000,000,000 cu. ft. and will cost $250,000.

DENVER, COLO.—It is stated that work will soon commence on the construction of a dam and completing the reservoir of the High Line Reservoir Co., at a cost of about $150,000. B. H. Du Bois is Pres.

SANTA FE, N. MEX.—Surveys are being made by H. C. Hinderlider, of the U. S. Reclamation Service, for a reservoir, which is proposed to be built on the La Plata River.

SACRAMENTO, CAL.—Bids are asked until 8 p. m., June 25, by M. J. Desmond, City Clk., for c. i. water pipe, about 1,075 lengths in all.

RATHDRUM, IDAHO.—We are officially informed that an extension of about three-fourths of a mile of 6.8 and 10-in. pipe is intended at Rathdrum. A reservoir is to be built for which bids will be asked in two or three weeks. William Ashley, Jr., is Des. Engr. A. Cook is Clk.

LANDPOINT, IDAHO.—The Landpoint Water Co. has decided to extend its mains into the new additions of the city, which are being taken in by the Council.

MONTPELIER, IDAHO.—A water-works system is being considered for this city, and Monson & Schwab, of Logan, Utah, are Engrs. Estimated cost, $22,500.

MONTREAL, QUE.—It is reported that the city's water supply will be increased by enlarging the aqueduct from Laclime to St. Gabriel's Ward. John R. Barlow is City Engr.

WOODSTOCK, ONT.—The TORONTO CONTRACTING & PAVING CO. has been awarded the contract for building a new reservoir for Woodstock, at $9,552. The reservoir will be of steel and cement, with a capacity of 1,000,000 gallons.

FORT WILLIAM, ONT.—We are officially advised that WILLIAM NEWMAN, of Regina, Sask., has been awarded contract for installing water system at Fort William, at about $114,000. The only other bid was that of Tonkin & Gowanlock, Fort William, $128,000. The engineer's estimate was $116,500. H. S. Hancock, Jr., is Town Engr.

REGINA, SASK.—See under Streets and Roads.

## SEWERAGE.

*The names of parties awarded contracts are printed in capital letters.*

FOXCROFT, ME.—Bids are asked until 6 p. m., June 25, by the Selectmen of Foxcroft, for the greatest amount of sewer construction to be done for $3,000.

PEABODY, MASS.—GEORGE M. BRYNE CO., 7 Water St., Boston, has secured the contract for Sections 3 and 4 of sewer, at Peabody, at $28,000.

WOONSOCKET, R. I.—Bids are asked until 2 p. m., July 5, by the Board of Sewer Commissioners, for building sewers in South Main, Social, Armory, Green and Front Sts. and Cass Ave. Frank H. Mills is City Engr. (Advertised Engineering News.)

HARTFORD, CONN.—The bids received by the Board of Contract and Supply, for constructing Section A of Windsor Ave. sewer were as follows: Charles H. Slocomb, $30,914; F. H. O'Neil, $31,084; W. H. O'Neil, $30,769.

NEW YORK, N. Y.—Bids are asked until 11 a. m., June 28, by Louis F. Haffen, Pres. Boro. of Bronx, for constructing sewers in Grand Boulevard, Perry and College Aves., 164th and 188th Sts., Cheever Pl. and in Sewerage District No. 33.

Bids are asked until 11 a. m., July 6, by Bird S. Coler, Pres. Boro. of Brooklyn, for construction of sewers in 85th, 59th and 42d Sts., and Brooklyn Ave.; also for constructing sewer basins at two of the corners of Jerome St. and Belmont Ave.

SCHENECTADY, N. Y.—The contracts for construction of sewers in Ninth and Tenth Wards and for construction of a concrete outlet were let by the Board of Contract and Supply to JOHN ALLEN and BECKWITH BROS., respectively. Both contractors are of Schenectady.

SENECA FALLS, N. Y.—Plans, specifications and bidding sheet for sewer system to be installed at this village, as noted in issue of June 14, are on file at the office of Engineering News, New York. Bids are asked until June 28. Morrison & Farrington, Syracuse, are Engrs.

WATERFORD, N. Y.—We are officially advised that DANIEL J. CONROY, of Oneida, N. Y., has been awarded contract for installing sewer in Saratoga Ave., at $20,376. The only other bidder was Peter Morgan, Poughkeepsie, whose bid was $20,730. The work consisted of laying 11,000 lin. ft. of 8 to 20-in. sewers. Thomas Grattan, 192 Mohawk St., Cohoes, is Ch. Engr.

BINGHAMTON, N. Y.—The plans for enlarging sewer in Chenango St., from Lewis to Henry Sts., have been approved by the State Health Department at Albany, and D. C. Herrick, City Engr., will soon advertise for bids for the work.

KENMORE, N. Y.—The Buffalo Committee on Sewers has ordered that a trunk sewer be installed on Elmwood Ave., for the drainage of Kenmore.

SYRACUSE, N. Y.—Bids are asked until 1.30 p. m., June 25, by the Board of Contract and Supply for installing sewers in Willis, Driscoll, Tennyson and Lafayette Aves., and Huron and Almond Sts., and Kirkwood Pl. F. J. Schnauker is City Engr.; George J. Metz is City Clk.

IRVINGTON, N. J.—The Town Council has awarded to JAMES J. FUSCO, of Montclair, contract for constructing sewers in Irvington, at $9,034.

NEW BRUNSWICK, N. J.—The contract for constructing the Bishop and Carman Sts. sewers has been awarded to A. JELIN, at $1.98 and $1.24 per lin. ft., respectively.

NEWARK, N. J.—WILLIAM J. McCLOUD & CO., of Elizabeth, have secured contract for constructing sewers in this city, at $110,000. M. R. Sheererd is Ch. Engr. Sewer Dept.

LANCASTER, PA.—Bids are asked until noon, July 19, by the Special Sewerage Commission, Charles G. Barker, Clk., for building about 3,600 ft. of 108-in. reinforced concrete sewer and appurtenances. F. H. Shaw, Woolworth Bldg., is Engr.

SCRANTON, PA.—We are officially advised that about 14 miles of from 6 to 60-in. sewer will be laid this season at a cost of about $285,000, and that bids for the work probably will be asked within the next 60 days. Henry Jifkins is City Engr.; M. T. Lavelle is City Clk.

WASHINGTON, D. C.—Bids were opened June 14, at the office of the Commissioners of the District of Columbia, Washington, for construction of two sewers in the District: Sewer (A) on 14th and E Sts., N. W., and Sewer (B) on Bennings Road. The following are the items: Sewer (A), Item (1) ordinary excavation, per cu. yd.; (2) red brick masonry, per cu. yd.; (3) 24-in. pipe sewer, per lin. ft.; (4) 12-in. pipe sewer; Sewer (B), Item (5) ordinary excavation; (6) red brick masonry; (7) vitrified brick masonry; (8) concrete "D" masonry. The bids are: Lyons Bros., (1) $2, (2) $16.35, (3) $1.35, (4) $1.10; Jas. A. Coyle, 2750 14th St., N. W., Washington, (1) $1.30, (2) $16, (3) $1.50, (4) $1.40, (5) 80 cts., (6) $16, (7) $18, (8) $8; King, Rice & Ganey, (5) 80 cts., (6) $14.50, (7) $17.50, (8) $7; Edmund Saxton, 841 Bladensburg Road, N. E., Washington, (1) $1.70, (2) $14, (3) $1.45, (4) $1, (5) $1.23, (6) $14, (7) $20, (8), $8; E. G. Gummel, 612 F St., N. W., Washington, (1) $1.25, (2) $15, (3) $1.46, (4) $1.34, (5) 70 cts., (6) $15, (7) $18, (8) $7.50; R. J. Beall Construction Co., Washington, (1) $1.05, (2) $14.75, (3) $1.24, (4) 79 cts.

We are officially advised that the bids received on June 11, by the Commissioners for installing sewer in Canal St. were those of E. G. Gummel, Washington, at $8,566, and James A. Coyle, Washington, at $6,648. The sewers will be constructed of pipe. D. E. McComb is Supt. of Sewers.

NORFOLK, VA.—Arrangements are being made for the early commencement of the work of laying the sewer system in the Fifth Ward of this city, which has been provided for by the Council.

LAURINBURG, N. C.—See under Water-Works and Irrigation.

ATLANTA, GA.—The Board of County Commissioners at a recent meeting voted to extend the Orme St. sewer from Eighth St., its present terminus, to the Southern Ry., at Brookwood. It will do this with the $10,000 appropriated by the City for material, the County furnishing the convict labor necessary.

PENSACOLA, FLA.—The Bond Trustees have granted a contract to STORY & CO., of New Orleans, for laying 42 miles of sewers in Pensacola, the consideration being $309,000. Work is to be started within 30 days, and will be completed within 350 days.

MONTGOMERY, ALA.—The City Council has let sewer contracts as follows: CROCKETT PAVING CO., for the Highland Park outfall, sewers on Ray, Brossel and Perry Sts., at $11,022; BLACK-LAIRD CO., sewers on Arthur, Plum, Putnam and Boyce Sts., Highland and Forest Aves., and Park Pl., at $5,093; MITCHELL BROS., sewers on Summit, Maggie, McDonough and Perry Sts., Highland, Forest, Noble, Park, Finley and Felder Aves., at $7,212.

MEMPHIS, TENN.—The city sewerage system will be extended at a cost of $20,000.

COLLINWOOD, OHIO.—Bids are asked until June 30 by the Board of County Commissioners, Julius C. Dorn, Clk., for constructing a concrete culvert in Collinwood, box culvert in Bedford Township, and a culvert extension in Cleveland Heights.

CAMBRIDGE, OHIO.—Bids will be received shortly by the Board of Public Service for 35,000 to 40,000 ft. of sewer. Estimated cost, $50,000. O. M. Hodge is City Engr.

CHILLICOTHE, OHIO.—We are officially informed that JARDINE, BREWER & TOMILSON, of Chillicothe, have secured contract to construct the Henry Creek storm water sewer, at $12,505. This comprises 1,500 lin. ft. of 8 x 9 ft. concrete sewer. Other bidders were: W. H. Ringwald, Chillicothe, $13,695; M. L. Jones & Bro., Chillicothe, $13,485; D. E. Sullivan & Son, Columbus, $12,635; the Pitts Construction Co., Pittsburg, Pa., $14,250; Hounker & Williams, Springfield, $14,502; W. S. Pace, Newcomerstown, $15,490.

NEW PHILADELPHIA, OHIO.—Bids are asked by the Board of Public Affairs, for installation of a combined sanitary and storm sewer. Paul R. Murray is Engr.

SPRINGFIELD, OHIO.—Estimates are being prepared by W. H. Sieverling, City Engr., for constructing sanitary sewers on the north side of the city.

SOUTH BEND, IND.—Bids are asked until June 25, by the St. Joseph County Commissioners, for constructing a pipe sewer from the new County Infirmary to the St. Joseph River. John W. Harbau is Audr.

LINTON, IND.—Plans have been prepared and bids will shortly be received for the construction of a sewerage system to cost about $60,000.

MICHIGAN CITY, IND.—AUGUST SCHNEIDER, of this city, has been awarded the contract for construction of sewers in Franklin and Tennessee Sts.

ESCANABA, MICH.—Bids probably will be asked until July 3, for 4,053 ft. 8-in. pipe sewer, with 15 manholes and 12 lampholes, to cost altogether about $4,945. D. A. Brotherton is City Engr.

ST. JOSEPH, MICH.—It is reported that bids will be received this fall for five blocks of 18-in. sewer on Main St. W. J. Cleary is City Engr.

DETROIT, MICH.—JOHN AFFELD & SON are reported to have secured the contract for constructing sewers in Waterman, Scotten and Warren Aves., at $30,465.

ESCANABA, MICH.—We are officially informed that bids will be asked for about July 3 for constructing sewer in Escanaba. D. A. Brotherton is City Engr.

CASEY, ILL.—See under Water-Works and Irrigation.

ELGIN, ILL.—The City Council at Elgin will soon advertise for bids for construction of sewer system for the town, to cost about $246,000. Henry Dakin is City Engr.

TWO RIVERS, WIS.—Bids are asked until 7.30 p. m., July 10, by the Board of Public Works, for constructing a part of the sewer system of Two Rivers.

MANITOWOC, WIS.—HARDING & NELSON, of Racine, Wis., have been awarded the contract for sewers to be constructed here on North Seventh and Eighth Sts.

SIOUX CITY, IOWA.—We are officially advised that pipe sewer and catch-basins, estimated to cost $7,000, will be placed in Nebraska St. before paving is done. J. M. Lewis is City Engr.

ROCKWELL CITY, IOWA.—The contract to construct sewers in Drainage District No. 27 has been let to MOELLER BROS., of Knierem, at $10,411, and for those in District No. 47 to J. F. PARISH, of Pomeroy, at $6,801.

DES MOINES, IOWA.—Bids are asked until July 2, by the Board of Public Works, for the construction of a 12-in. vitrified clay pipe sewer in Kingman Boulevard, of about 1,630 lin. ft. W. W. Wise is Chn. Bd. Pub. Wks.

GREENE, IOWA.—It is reported that bids will shortly be received for construction of a sewer system, to cost about $6,000. G. H. Meredith, Cedar Rapids, is Engr.

DULUTH, MINN.—Plans and specifications have been prepared by Thomas F. McGilvray, City Engr., for the construction of sewers in West Duluth.

FAIRBURY, NEBR.—Bids are asked until noon, July 10, by F. L. Rain, City Clk., for construction of 8,500 ft. of 8 and 10-in. sewer with manhole and flush tanks. Engineer's estimate of cost is $7,500. W. W. Watson is City Engr. (Advertised Engineering News.)

NORFOLK, NEBR.—Bids are asked until 5 p. m., June 29, by Julius Hulff, City Clk., for constructing main sewer system at Norfolk. Andrew Rosewater is Consult. Engr. (Advertised Engineering News.)

KANSAS CITY, MO.—W. C. MULLINS has contract at $37,942 for constructing sewer to drain the territory between 31st St. and Armour Boulevard, Locust and Campbell Sts.

CAPE GIRARDEAU, MO.—Plans, specifications and bidding sheet for sewer system, to be installed at Cape Girardeau, as advertised in issues May 24, 31 and June 7, are on file at the office of Engineering News, New York. Bids are asked until July 2.

ARKADELPHIA, ARK.—City is considering the construction of sewerage system to cost $30,000.

FORT SMITH, ARK.—S. A. Mitchell, of Kansas City, Mo., has been engaged to make surveys, estimates and specifications for proposed paving and sewer work.

TAYLOR, TEX.—A company is being organized here for the purpose of installing a sewer system. William Brush, of Austin, is interested.

OKLAHOMA CITY, OKLA.—W. C. Burke, City Engr., has been instructed to prepare plans and specifications for a sanitary sewer system from Walker to Western Ave., between Reno and California Aves.

PORTLAND, ORE.—Official notice has been given by Thomas C. Devlin, City Audr., of the intention of the City Council to construct a sewer in Brooklyn District, Portland, to cost about $250,490, a description of which is on file at the office of Engineering News, New York.

ST. HELENA, CAL.—J. H. STEVES HARDWARE CO. has been awarded the contract to construct a sewer on Stockton St.

OGDEN, UTAH.—Specifications for sewer to be constructed at Ogden, as noted in issue of June 7, are on file at the office of Engineering News, New York. Bids are asked until June 23. A. F. Parker is City Engr.

REGINA, SASK.—See under Streets and Roads.

## STREETS AND ROADS.

*The names of parties awarded contracts are printed in capital letters.*

FORT LEVETT (Portland Post Office) ME.—We are officially advised that T. H. Gill & Co., 88 Broad St., Boston, were the lowest bidders on June 15, for grading, relaying railroad tracks, construction of roads, walks and gutters, etc. Major A. W. Yates is Q. M.

BRUNSWICK, ME.—RICHARD D. SHANAHAN, of Portland, has secured contract at $7,346, to macadamize Maine St. There were four other bidders.

CONCORD, N. H.—We have been officially informed that gravel roads will be constructed in Londonderry, Hollis, Warner, Raymond, Enfield, Epping and Tuftonboro, and that the cost will amount to about $13,725. A. W. Dean, Concord, is State Engr.

CONCORD, N. H.—Bids are asked until 5 p. m., June 23, by A. W. Dean, State Engr., for grading and surfacing with gravel parts of the several roads in the state.

Bids are asked until 5 p. m., June 30, by the State Engineer for constructing macadam and gravel roads in Newport, Salem and Pembrook. Estimated cost, $7,850.

BOSTON, MASS.—The following contracts have been let for building state roads, for which bids were received June 12: Road in West Newbury, COLLINS & O'NEIL, of Newburyport, $3,020; road in Bridgewater, R. F. HUDSON, of Melrose, $3,967; road in Granby, AMOS D. BRIDGE, $4,989.

NEW YORK, N. Y.—Bids are asked until noon, June 26, by J. A. Bensel, Comr. of Docks, for laying a new granite pavement with sand foundation, on 13th Ave., between West 22d and West 23d Sts., and on part of West 22d St.

The HARLEM CONTRACTING CO., 41 Wall St., has secured contract to pave a part of Seventh Ave. with asphalt blocks, at $237,647. The BARBER ASPHALT CO., 114 Liberty St., will pave Eighth Ave., at $97,764.

We are informed that the following bids were received on June 14, by John F. Ahearn, Pres. Boro. Manhattan, (a) for constructing parkways, regulating and repaving with asphalt block pavement on concrete foundation, the roadway of Seventh Ave., from 110th to 153d Sts., (b) for regulating and paving with asphalt blocks on concrete foundation, the roadway of Broadway, Manhattan to 135th Sts., (c) for regulating and paving with asphalt on concrete foundation the roadway of Eighth Ave., from 13th St. to Columbus Circle, except between 31st and 33d Sts., Harlem Contracting Co., 41 Wall St., New York (a) $237,697, (b) $44,395; Barber Asphalt Paving Co., 114 Liberty St., (a) $240,724, (b) $42,648, (c) $97,763; Sicilian Asphalt Paving Co., 41 Park Row (c) $121,700; Uvalde Asphalt Paving Co., 1 Broadway, (c) $107,715.

The aldermen have made park appropriations which include $590,000 for Manhattan and Richmond, $634,930 for Brooklyn and Queens, and $369,000 for the Bronx, a total of $1,593,930.

An appropriation of $750,000 was authorized for repaving the streets in the entire city, $250,000 each being allowed to Manhattan and Brooklyn, the rest to be divided equally among the other three boroughs.

Bids are asked until 11 a. m., June 28, by Louis F. Haffen, Pres. Boro. of Bronx, for constructing traverse roads at Belmont Ave., in connection with the Grand Boulevard and Concourse, and for regulating, grading, curbing, laying crosswalks, etc., on various streets in Bronx.

BUFFALO, N. Y.—We are officially informed that the bids received June 8, by F. G. Ward, Comr. Pub. Wks., for constructing concrete sidewalks from date of contract until June 30, 1907, were as follows: H. P. Burgard Co., 12½ cts. a sq. ft.; E. D. Hofeller, 12 3-4 cts. a sq. ft.; Robert Seibert, 13 cts. a sq. ft.

GLENS FALLS, N. Y.—Bids are aksd until July 2 by the Village of Glens Falls, William M. Cameron, Clk., for asphalt paving on several streets. (Advertised, Engineering News.)

CAMDEN, N. J.—Bids are asked until 11 a. m., July 11, by the Board of Chosen Freeholders, for macadamizing about 2½ miles of the Blackwood Turnpike, from Heading to Chews Landing. Plans are on file at the office of Engineering News, New York. J. J. Albertson is County Engr. (Advertised, Engineering News.)

BRIDGETON, N. J.—It is proposed to pave certain streets with brick macadam at a cost of about $22,000. Frank L. Hewitt is City Recdr.

MOUNT HOLLY, N. J.—Bids are asked until July 9, by the Board of Chosen Freeholders, at Mount Holly, for macadamizing the public road known as Lumberton and Medford Road.

MADISON, N. J.—Bids are asked until 8 p. m., June 28, by the Street Committee, for constructing and grading sidewalks on Maple, Green, Greenwood, Cook, Central, Madison Aves., and Vinton Road. S. J. Flanagan is Chm. St. Com. (Advertised, Engineering News.)

AVALON, N. J.—We are officially informed contract for paving about 50,000 lin. ft. with cement, at Avalon, has been awarded to the Seaboard Cement Stone Co., of Holly Beach, N. J. R. L. Goff is City Engr.; F. P. Campbell is City Clk.

SCRANTON, PA.—We are officially advised that about 31,000 sq. yds. of bitulithic pavement will be laid, costing about $62,000; also about 13,600 sq. yds. asphalt pavement costing $38,000. Bids will be asked for in about 60 days. Henry Jipkins is City Engr. M. T. Lavalle is City Clk.

ALTOONA, PA.—Bids are asked until 7 p. m., July 9, by the Board of Public Works, George W. Kuebler, Chm., for grading and paving about 142,575 sq. yds. of streets with vitrified brick. (Advertised, Engineering News.)

MEADVILLE ,PA.—Bids are asked until 8 p. m., June 27, by the Select and Common Councils, for grading and paving six sections of streets with asphalt block, vitrified brick, sheets asphalt and bitulithic pavement. H. S. Robinson is City Clk. (Advertised, Engineering News.)

AMBRIDGE, PA.—Bids are asked until June 23 by the Council, Charles Rye, Clk., for paving portions of Maplewood Ave. and Sixth St. J. C. Barr & Co. are Engrs., 309 Fourth Ave., Pittsburg.

PITTSBURG, PA.—Bids are asked until noon, July 9, by the Commissioners of Allegheny County, for permanent improvements to the Leechburg, the Hulton and the Millers Run roads. F. P. Booth is County Controller.

WASHINGTON, D. C.—The Commissioners of the District of Columbia have transmitted to Congress a bill providing for the construction of a road along the south bank of the Anacostia River from Anacostia to Giesboro Point, to cost about $15,000.

WHEELING, W. VA.—Bids are asked until 2 p. m., June 23, by T. C. Moffat, Clk. Bd. Comrs., for macadamizing various roads in the County of Ohio.

KEYSER, W. VA.—The contract for paving the streets of Keyser has been awarded to the H. C. BROOKS CO., of Wheeling, at $15,000.

DALLAS, N. C.—PROBST CONSTRUCTION CO., Charlotte, has contract for grading 21 miles macadamized road in Gaston County.

RALEIGH, N. C.—F. W. HUNNICUTT has contract for laying 4,500 yds. of granolithic paving in Capitol Sq.

ATLANTA, GA.—Plans are being considered by the City Council for the proposed national park, which is projected in connection with a system of boulevards encircling the city.

COLUMBUS, MISS.—Bids are asked until June 26, for laying 2,000 yds. of concrete walks at the Industrial Institute and College, at Columbus.

LAKE CHARLES, LA.—PRINGLE & SON, of Kansas City, have secured contract to pave Ryan, Pujo and Broad Sts., at $69,-776.

COVINGTON, KY.—May St., from Sixteenth to Boone Sts. will be graded, macadamized and curbed, and an alley south of Sixth St. will be graded, curbed with brick, and paved. W. E. Gunn is City Engr.

CINCINNATI, OHIO.—We are officially advised that the Charles Kuhl Artificial Stone Co., Cincinnati, submitted the lowest of the bids received June 14 for sidewalks at St. Bernard. James A. Stewart is City Engr., Cincinnati.

CHILLICOTHE, OHIO.—Bids are asked until June 27, for paving with brick on a concrete or rolled gravel foundation, 12,000 sq. yds. of roadway. Estimated cost, $24,000. H. M. Redd is Engr.

DELAWARE, OHIO.—Bids are asked until 10 a. m., July 11, by E. S. Mendenhall, County Surv., for improving the Lewis and Shoemaker road, in Delaware County.

COLUMBUS, IND.—Bids are asked until July 2, by William A. Morris, Audr. Bartholomew County, for constructing more than a mile of gravel road in Rockcreek Township.

PAOLI, IND.—For constructing 10,647 ft. gravel road, the Commissioners of Orange County have contracted with CHARLES HOUSEFIELD, of Campbellsburg, at $4,000.

ESCANABA, MICH.—For macadamizing two miles of road in Delta County, JOHN McLAUGHLIN & CO. have been awarded contract, at $7,057.

CHAMPAIGN, ILL.—Bids are asked until 2 p. m., June 28, by the Board of Local Improvements, for paving West Clark St. 8,423 sq. yds. brick pavement is needed, also curb and gutter. G. C. Faircló is City Engr. (Advertised, Engineering News.)

CASEY, ILL.—See under Water-Works and Irrigation.

EFFINGHAM, ILL.—Bids are asked until June 27, by the Board of Public Improvements, for paving Jefferson St. We are officially informed that bids will be asked in about one month for paving Banker St. L. H. Bissell is Mayor.

FENNIMORE, WIS.—Bids will be received shortly for 14,000 sq. ft. of cement sidewalks, 2,400 sq. ft. of crossing, and 1,700 lin. ft. of curb and gutter. William Weaver is City Clk.

PUEBLO, COLO.—The CLEVELAND TRINIDAD PAVING CO. has secured contract for paving North Union Ave., at $31,-364.

TACOMA, WASH.—The Commissioner of Public Works has awarded the contract for paving South E St., from Tacoma Ave. to South 27th St., to the INDEPENDENT ASPHALT PAVING CO., on its bid of $112,-673. Frank L. Davis is City Engr.

SPOKANE, WASH.—Bids in duplicate are asked until 2 p. m., June 28, by the Board of Public Works, for improvements on Pacific Ave.; also for maintenance of the above work for ten years after completion. F. P. Weymouth is Pres. of Bd. Pub. Wks.

SALT LAKE CITY, UTAH.—Bids are asked until 11 a. m., July 6, by the Board of Public Works for grading, paving and curbing several streets. F. J. Leonard is Chn.; L. C. Kelsey is City Engr. (Advertised, Engineering News.)

SARNIA, ONT.—ANDREW J. MURPHY, of Port Huron, Mich., has been awarded the contract for laying asphalt block pavement on George St., Sarnia. His bid was $2.20 a sq. yd.

REGINA, SASK.—Bids are asked until July 3, by Angus Smith, City Engr., for constructing pavements, sidewalks, waterworks and sewers.

## MANUFACTURING PLANTS.

*The names of parties awarded contracts are printed in capital letters.*

FALL RIVER, MASS.—It is reported that I. Goodman & Co., 215 Greene St., New York, have decided to remove their entire plant, now consisting of factories in New York, Brooklyn and other places, to Fall River.

SALEM, MASS.—The Wayland Tanning Co., of this city, has purchased the ruins of the Dennis Brady shoe factory, on Waters St., and will build a tannery.

INGRAMVILLE, R. I.—The Ingramville Dye Works has plans prepared for a new dye house, brick, 50 × 90 ft., which will be built this summer. William Holliwell is Mgr.

PAWTUCKET, R. I.—The Providence Braid Co. has purchased a site in the South Woodlawn district of Pawtucket and will erect a mill 180 × 70 ft., for the manufacture of braids and tapes, within the next six months. The mill will be built of brick, one story in height, and will cost about $40,000.

STERLING, CONN.—The United States Finishing Co., manufacturer of cotton finishings, has awarded to PECK, McWILLIAMS & CO., of Norwich, Conn., the contract for the mill, stack and eighteen tenement houses which it is to erect at Sterling. The mill will be a 2-story brick structure, 116 × 158 ft. The amount involved in the contract is approximately $72,000.

HARTFORD, CONN.—It is reported that the Whitney Manufacturing Co., which makes driving chains and machinery, will begin immediately the erection of a factory on the property along the tracks of the New York, New Haven & Hartford road, south of the Hartford Rubber Works and the Pope tube mill. The main building will be 225 × 61 ft.

NEW YORK, N. Y.—Bids are asked until 11 a. m., June 23, by Francis J. Lantry, Comr., Dept. of Correction, for constructing a 40-ton ice-making plant on Hart's Island. Bids for the building in which this plant will be housed have been received, as follows: M. Tully, $11,975; R. J. T. Gerstle Co., 44th St. and First Ave., $8,598; Thos. J. Lanigan, 1123 Broadway, $14,821; A. S. Traub, 215 West 125th St., $8,784; Behan & Cavanaugh, Fourth Ave. and 23d St., $8,900; James T. Buckley, 310 West 65th St., $9,-525; W. Horne Co., 245 West 26th St., $8,-270; P. Kiernan, 15 East 218th St., $9,200.

ATLANTIC CITY, N. J.—Contract for erecting what is to be the only distillery in New Jersey has been let to C. WALTER, at about $135,000. The building will be located at New York and Mediterranean Aves.

SCRANTON, PA.—It is reported that the Lackawanna Knitting Mills Co., of South Scranton, will construct extensive additions at once. M. J. RUDDY has the contract for brick work. C. R. Connell is Mgr.

The Globe Silk Manufacturing Co., capitalized at $50,000, has been granted a charter. The new concern proposes to build a silk mill at 507-513 Cedar Ave. The officers are: Henry J. Zeigler, Sr., Pres.; Henry J. Zeigler, Jr., Secy.; Louis Schumacher, Treas.

The Tripp Park Throwing Co. has awarded the contract for the erection of the building for its new silk throwing plant to the M. STIPP CONSTRUCTION CO. The plant will be located on the Tripp estate. The building will be of brick and of modern construction throughout. New machines will be installed.

CHESTER, PA.—Additions and improvements, we are informed, will be made to the plant of the Federal Steel Castings Co., recently incorporated with a capital of $500,-000, to take over the plant of the Delaware River Steel Castings Co.

HAGERSTOWN, MD.—The Western Maryland Ry. Co. will start work soon on new brick and steel shops, to include a blacksmith shop 50 × 80 ft., repair shop 100 × 240 ft., and a power plant 40 × 40 ft., to cost, exclusive of the machinery, $75,000. Bids are now being received for the work at the office of J. W. Galbreath, Principal Asst. Engr., Baltimore.

BELINGTON, W. VA.—The North American Steel Co., G. C. Broomall, V.-Pres., is making extensive improvements at its iron and steel works.

SELMA, N. C.—The Lizzie Cotton Mills have been chartered here with a capital of $150,000. M. C. Winston and L. D. Debnam are the principal stockholders.

CHARLOTTE, N. C.—The South Atlantic Waste Co. is making arrangements for rebuilding its plant in North Charlotte. Material is on the ground and the construction of the buildings will begin at once.

CHARLOTTE, N. C.—The stockholders of the Cannon Manufacturing Co., of Concord, have voted to increase the capital stock and build another mill. An amendment to the charter has been filed to permit the increase of capital from $200,000 to $1,000,000. The new mill will have an outfit of 30,000 spindles and 400 looms for making cotton cloth.

ROSSVILLE, GA.—J. L. Hutcheson, Pres. of the Park Woolen Mills, of Rossville, and other stockholders of that company will begin immediately the erection of a new woolen mill plant to cost about $45,000. The new plant will be erected on a 115-acre tract of land recently purchased. The large mill structure will be in the form of a hollow square facing 286 ft. on one side and 200 ft. on the other.

WOODWARD, ALA.—The Woodward Iron Co. will erect a $100,000 plant here. Boilers to generate 1,600 HP. are purchased, but will consider bids for motors for pumps and fans, feed water heaters, pumps and building; engine room will be one story, 38 × 80 ft. Bids close about June 18. Geo. R. Wood, 102 Fulton Bldg., Pittsburg, is Engr.

NEW ORLEANS, LA.—The Cosmopolitan Ice Co. has been organized, capital $10,000. The corporation is to construct a large ice plant, with all the latest machinery, and is to operate ice cellars and refrigerators. Salvador La Rosa, Pres.; A. P. Schiro, V.-Pres.; P. Montelepre, Secy., and C. Di Cristini, Treas.

A rice mill is to be built at once at New Orleans for Bloom & Son, rice dealers and exporters. This mill is to have a capacity of 800 bbls. per run of twelve hours, and will be equipped with electrical motor power.

The contract for the construction of the $100,000 5-story flour mill, 67 × 105 ft., for the H. T. Lawler Milling & Trading Co., has been awarded to the JEFFERSON CONSTRUCTION CO., Birmingham, Ala. Mackenzie & Goldstein, 407 Tulane-Newcomb Bldg., are Archs.

MEMPHIS, TENN.—Binswanger & Co., of Richmond, Va., have closed a deal for a site here for a glass manufacturing and distributing plant and warehouse. The company is capitalized at $100,000. Work has already begun on the plant, which is to be four stories high, 100 × 150 ft. and which is to be ready for occupancy by Sept. 1.

LOUISVILLE, KY.—The Continental Car & Equipment Co., of New York, McKinley Boyle, Secy., will erect extensive car works here, to have a capacity of 4,000 cars annually. Mr. Boyle, together with N. B. Porter, who will be district manager of the plant, are now in Louisville, at the Seelbach Hotel.

MIDLAND, OHIO.—It has just been announced that the Midland Steel Co. plans to spend $10,000,000 on its Midland plant. Work to cover 800 acres is already contracted for.

LORAIN, OHIO.—The National Tube Co. will build several new mills and furnaces here as an addition to their present plant.

PORTSMOUTH, OHIO.—J. P. PETTIJOHN & CO., of Lynchburg, Va., have been given a contract by the Norfolk & Western for putting up a new brick coach shop, 66 × 304 ft., to cost $16,500.

SHELBYVILLE, IND.—The Shelbyville Foundry & Machine Co. has incorporated to build a large factory here to manufacture gasoline engines. About $50,000 will be expended. S. H. Myers is Pres. and C. D. Johnson, Secy.

SPRINGFIELD, ILL.—The C., C., C. & St. L. Ry. Co., it is said, will soon put up large car shops on a 24-acre track of land near Lagonda. It is said that $500,000 has been appropriated for these improvements.

COLUMBIA HEIGHTS, MINN.—J. & W. A. ELLIOTT, Lumber Exchange, Minneapolis, have secured the contract for the erection of a main building, 2-story, 36 × 140 ft., at the pulp board box factory for the Roberts Lumber Co., Fourth St. and First Ave.

HOPKINS, MINN.—We are officially advised that the Moran Boiler Co. has been incorporated with a capital of $40,000. The company will erect a plant of concrete block construction and engage in the manufacture of heaters. J. E. Eckstrom, Hopkins, is Mgr.

ST. LOUIS, MO.—It is reported that an addition, 83 × 74 ft., five stories, will be built at the factory of the Moser cigar and paper box factory, Second and Elm Sts. W. H. Gruen, 821 Olive St., is Arch.

The American Car & Foundry Co. has awarded contracts for the construction of its new steel car plant in St. Louis, to cost $1,300,000.

BEAUMONT, TEX.—Alex. Feigelson is clearing a site here for the erection of a 3-story brick building which he will occupy with a wagon and carriage factory.

APPLEGATE, TEX.—The Texas & Ohio Lumber Co., which was organized recently, will erect a lumber mill at this place. The company has a capital of $200,000. H. D. Applegate, of Beaumont; A. P. Laughlin, of Jefferson, Ohio, and W. A. Lincoln, of Cleveland, Ohio, are among the incorporators.

PORTLAND, ORE.—It is announced that J. H. Johnson has purchased eight acres and will establish a boat-building plant.

SAN FRANCISCO, CAL.—It is reported that a smelting plant will be erected by the American Smelting & Refining Co., at San Bruno Point.

MONTREAL, ONT.—The Canadian Bronze Co., Montreal, will erect a new factory to cost $20,000.

MONCTON, N. B.—Bids are asked until June 23 by the Intercolonial Railway for building the first of its new car and machine shops to replace those destroyed by fire. The first building to be put up is to be a reinforced concrete car repair shop, 630 × 132 ft.

## MISCELLANEOUS CONTRACTS.

*The names of parties awarded contracts are printed in capital letters.*

DITCH.—Columbus, Ind.—Wm. A. Wrights, Drainage Supt., will receive bids until June 26, 2 p. m., for the construction of a ditch in German Township, to be three miles long.

DREDGING.—Boston, Mass.—Bids are asked until noon, July 19, by Maj. Edward Burr, U. S. Engr., for dredging Fort Point Channel, Boston Harbor. (Advertised, Engineering News.)

DREDGING.—Biloxi, Miss.—Bids are asked until noon, July 16, by Capt. J. B. Cavanaugh, U. S. Engr., Mobile, Ala., for dredging in the harbor of Biloxi, Miss. (Advertised, Engineering News.)

SCREENS.—Fort Monroe, Va.—Bids are asked until noon, June 29, for furnishing screen doors and windows for all buildings at this post. Capt. R. H. C. Kelton is Q. M. (Advertised, Engineering News.)

LOT WALL.—Elmira, N. Y.—One bid was received by the Supervising Architect of the Treasury, June 9, for building a lot wall for the U. S. Court-House, Elmira, N. Y.: Ambrose B. Stannard, New York, $7,290.

PORTLAND CEMENT.—Chicago, Ill.—Bids are asked until 10 a. m., July 7, at the office of the U. S. Reclamation Service, 876 Federal Bldg., Chicago, for 45,000 bbls. of Portland cement. (Advertised, Engineering News.)

TUNNEL.—Salt Lake C[illegible] Utah.—Bids are asked until 3 p. m., A[illegible], at the office of the U. S. Reclamati[illegible]vice, for the construction of the Strawb[illegible] Tunnel about 18,600 lin. ft. (Advert[illegible] Engineering News.)

REBUILDING LOCKS.—C[illegible]bus, Ohio.—Bids are asked until noon[illegible] 12, by the State Board of Public Wor[illegible] rebuilding locks on the Ohio Canal. [illegible] E. Perkins is Ch. Engr. (Adverti[illegible] Engineering News.)

STEEL BARS.—Billings[illegible]—Bids are asked until 2 p. m., July 2[illegible] the office of the U. S. Reclamation Serv[illegible]for furnishing 405,000 lbs. of steel bar[illegible]oncrete reinforcement. (Advertised[illegible] Engineering News.)

DREDGING. — Roscoe, O[illegible] — Bids are asked until noon, July 1[illegible] the State Board of Public Works fo[illegible]dging the Walhonding River from Ro[illegible]o Six-Mile Dam. Chas. E. Perkins is C[illegible] Engr. (Advertised, Engineering News.)

PORTLAND CEMENT.—Co[illegible]bus, Ohio —Bids are asked until noon, [illegible] 12, by the State Board of Public Work[illegible] the delivery at various depots of 21,8[illegible] of Portland cement. Chas. E. Perki[illegible] Ch. Engr. (Advertised, Engineering New[illegible]

CONCRETE DAM.—Roscoe[illegible]Ohio.—Bids are asked by the State Bo[illegible] of Public Works, Columbus, until noon[illegible]y 19, for the construction of a concre[illegible]m on the Walhonding River, near Ro[illegible] Chas. E. Perkins is Ch. Engr. (Adverti[illegible] Engineering News.)

RETAINING WALL.—Indian[illegible]lis, Ind.—The American Construction Co[illegible] the lowest bidder for the construction of[illegible] retaining wall along banks of White Riv[illegible] in Riverside Park, also for a levee, and probably will be awarded the contract. J. C. Power is Supt. Park.

POST OFFICE BOXES.—Wa[illegible]ngton, D. C.—Bids are asked until 3 p[illegible] July 5, by James Knox Taylor, Super[illegible]ng Arch., Treasury Dept., Washington, D. C., for furnishing post office lock boxes during the fiscal year ending June 30, 190[illegible] (Advertised, Engineering News.)

BREAKWATERS.—Sheboygan, Wis.—Bids are asked until 3 p. m., June 27, at the U. S. Engineer's Office, Milwaukee, Wis., for building crib extensions of 100 ft. each to breakwaters at Sheboygan and Kenosha Harbor, Wis. Maj. W. V. Judson is Engr. (Advertised, Engineering News.)

CANAL.—Belle Fourche, S. D.—The Secretary of the Interior has authorized the Reclamation Service to complete the work on the main supply canal, Belle Fourche project, by force account. This work was abandoned by the Widell Finley Co., and no bids were received for its completion.

CONDUIT.—Toronto, Ont.—G. M. GEST, 277 Broadway, New York, has been awarded a contract for the construction of 500,000 ft. of conduit for the Toronto Railway Co., of Toronto. This will complete the subway system for that company, and will give it one of the most complete underground conduit systems of any railroad.

SUBWAY.—Philadelphia, Pa.—Preliminary plans for the construction of the North Broad St. subway have been filed with the Board of Highway Supervisors by the Rapid Transit Co. The plans provide for a two-track road from the north side of the City Hall to Olney Ave. Its construction is to be similar to the Market St. subway.

WHARF. — Savannah, Ga.—Bids were opened June 14, at the Office of the Supervising Architect of the Treasury, Washington, D. C., for the construction of a wharf and laundry building at the U. S. Quarantine Station, Savannah, Ga. The bids were: D. Power & Co., Savannah, Ga., $11,250; E. Morgan, Newport News, Va., $11,373.

CANAL.—Billings, Mont.—The Secretary of the Interior has rejected the bid of the Billings Construction Co., of Billings, Mont., for the construction of Division 1, Garland Canal, Shoshone project, Wyo., for sections 2, 3 and 8 only, and also the bid of Hughes & Olsen, Butte, Mont., for the construction of all the sections 2 to 8, except section 5.

CANAL.—Cody, Wyo.—Bids are asked until 2 p. m., July 11, at the office of the Engineer, U. S. Reclamation Service, Billings, Mont., for the construction of Division 1, Garland Canal, Shoshone Project. About 600,000 cu. yds. of earth and 96,000 cu. yds. of rock and shale excavation will be involved. (Advertised, Engineering News.)

DITCHES.—Martinton, Ill.—We are officially informed that the Commissioners of Martinton Drainage District No. 3 are preparing to do about 500,000 cu. yds. of work on the ditches in the district, about 300,000 cu. yds. of which will be dredge work and the balance scraper work. They will let contracts during July or August. A. C. Morrison, Donovan, Ill., is Pres.

DREDGING, CONCRETE ABUTMENTS, AQUEDUCTS, LOCKS, ETC.—Columbus, Ohio.—Bids are asked until noon, July 10, by the State Board of Public Works for dredging the Miami and Erie Canal, 29 miles; concrete abutments; rebuilding two aqueducts; rebuilding 15 locks and 100 M. ft. B. M. lumber. Chas. E. Perkins is Ch. Engr. (Advertised, Engineering News.)

AIR COMPRESSORS.—Charleston, S. C.—Bids are asked until July 21 by the Bureau of Yards and Docks, Navy Dept., Washington, for two air compressors and accessories for the Navy Yard, Charleston, S. C. Of the compressors specified, one shall have a capacity for compressing not less than 1,200 cu. ft. per minute, and a second having a capacity for compressing not less than 2,500 cu. ft. per minute.

CANAL.—Glendive, Mont.—The Secretary of the Interior has awarded a contract to D. M. FREEMAN & CO., of St. Cloud, Minn., for the construction and completion of Division 3 of the main canal, Lower Yellowstone Project. Division 3 consists of nine miles of canal, involving the excavation of 1,000,000 cu. yds. of materia[illegible] 100,000 cu. yds. of overhaul, 900 lin. ft. of terra-cotta p nd 2,000 cu. yds. of puddling. The bid $245,038. Contract has been awarded JOHN A. NELSON, of Sidney, Mont., he construction and completion of Div 8 and Laterals F, G, and P, main c and lateral system, Lower Yellowston ject, at $29,983. This work involves 40 cu. yds. of excavation, 7,000 cu. yd overhaul, and 700 cu. yds. of puddlin

PUMP PLANT.—Billings, Mont.—Bids are ask until 2 p. m., Aug. 7, at the office of U. S. Reclamation Service, Billings, M for the construction of a pumping pla at Ballantine Station, about 23 miles of Billings. The work includes 15,000 yds. of earth excavation, 600 cu. yds. c te, 2,000 ft. reinforced concrete pipe, 1 0 lbs. of steel and water power pumpin plant. (Advertised, Engineering News.)

HARB IMPROVEMENT.—Albany, N. Y.—The Governor has approved the bill to authorize the city of Albany to issue bonds to the amount of $1,000,000 for the improvement of the river front at Albany. The work to be done by the city includes the laying of an intercepting sewer from the north bounds to the south bounds of the city, so that the sewage of the city will empty into the Hudson River below the city, and extensive repairing of the docks and bulkheads along the river front. W. E. Melius is City Engr.

CEMENT.—Washington, D. C.—Bids were opened June 15 by the Commissioners of the District of Columbia for 28,500 bbls. Portland cement. Items (1), delivered anywhere in District, (a) in wood, (b) in canvas; (2) at B. & O. siding; (3) at P., W. & B. siding; (4) in sheds. Atlas Portland Cement Co., New York, (1a) $1.80, (1b) $1.85, (2a) $1.75, (2b) $1.80, (3a) $1.75, (3b) $1.80, (4) $1.81. Wm. Wirt, Clark & Sons, Baltimore, (1a) $2.04, (1b) $2.07, (2a) $1.98, (2b) $2.01, (3a) $1.98, (3b) $2.01, (4) $2.04. National Mortar Co., 612 F St., N. W., Washington, (1a) $1.92, (1b) $1.97, (2a) $1.88, (2b) $1.93, (3a) $1.88, (3b) $1.93, (4) $1.92. Leigh Portland Cement Co., Washington, (1a) $1.89, (1b) $1.93, (2a) $1.85, (2b) $1.89, (3a) $1.85, (3b) $1.89, (4) $1.88.

## U. S. POSSESSIONS AND CUBA.

*The names of parties awarded contracts are printed in capital letters.*

CEMENT.—Panama.—The Isthmian Canal Commission has awarded to LINEHAN & MOLO, Dubuque, Ia., contract for furnishing 20,000 bbls. cement, at $1.78 per bbl.; total, $35,600.

LUMBER.—Panama.—The Isthmian Canal Commission has awarded to the PANAMA LUMBER & TRADING CO., New Orleans, La., contract for furnishing 2,000,000 ft. B. M. long-leaf yellow pine, at $57,960.

ENGINEERING SUPPLIES.—Panama.—Bids are asked until 10.30 a. m., June 29, by the Isthmian Canal Commission for 308,000 ft. standard galvanized-iron pipe, various sizes, and fittings; valves, stocks and dies, gasoline blast furnaces; portable scales; galvanized-iron wire, etc.

DUMP BARGES.—Panama.—Bids were opened June 8 at the office of D. W. Ross, Gen. Purchasing Officer, Isthmian Canal Commn., Washington, for furnishing six steel steam dump barges. The following are the bids: Wm. Cramp & Sons Ship & Engine Building Co., Philadelphia, $189,000; Ellicott Machine Co., Baltimore, $101,400; Fore River Shipbuilding Co., Quincy, Mass., $290,000, if awarded six; $50,000 if awarded one; Maryland Steel Co., Sparrow Point, Md., $167,700; T. S. Marvel Shipbuilding Co., Newburgh, N. Y., $156,000; Motley, Green & Co., 66 Broad St., New York, on foreign barges, $22,750 each at Liverpool; $20,750 at Colon, knocked down and ready for erection; Newport News Shipbuilding & Dry Dock Co., Newport News, Va., $149,000; Wm. D. Winant, Brooklyn, $111,000.

AIR COMPRESSORS.—Panama.—Bids were opened June 11 at the office of David W. Ross, Gen. Purchasing Officer, Isthmian Canal Commission, Washington, for six duplex steam and compound air compressors. The following were the bids: Blaisdell Machinery Co., Bradford, Pa., $36,000; time, first machine, three months; two more, four months; complete, five months. Chicago Pneumatic Tool Co., Chicago, $34,350; delivery, commence three months; complete, eight months. Ingersoll-Rand Co., 11 Broadway, New York, $37,800; shipment, commence, one week; complete, eighteen weeks; alternate, $33,450; commence shipment, three months; complete, four months. Laidlaw-Dunn-Gordon, New York, $31,800, $29,940; commence delivery in 70 days; complete, 145 days; Sullivan Machinery Co., Chicago, $38,220 (Corliss), $59,250; delivery, commence, six months, complete 8½ months.

## MEXICO.

*The names of parties awarded contracts are printed in capital letters.*

SMELTER.—Velardena, Durango. — Plans have been prepared for the construction of a smelter at Velardena, state of Durango, by the Velardena Mining and Smelter Co.

TUNNEL.—Conception del Oro, Zacatecas.—We are officially advised that the Mazapil Copper Co. will build a tunnel about one mile long at its mine at this place. W. J. Browning is Gen. Mgr.

AUTOMOBILE FACTORY.—Guadalajara, Jalisco.—Dr. Frank Lake, an American, is to establish an automobile factory in the City of Guadalajara. He will import an equipment of machinery from the United States.

RAILWAY—Chihuahua.—The Sierra Madre Ry. Co. is planning an extension from Casas Grandes, the present terminus, to Santo Tomas, of the Chihuahua and Pacific Ry. It is said construction will commence within the next six weeks. Surveys are being made for the extension of the road through the Sierra Madre mountains, to connect with the Southern Pacific west coast extension, and to secure a Pacific Coast port. J. P. Hallihan is Ch. Engr.

## READERS' WANTS

### FOR THOSE IN THE MARKET

**The readers of ENGINEERING NEWS are constantly in the market for great quantities of machinery, tools and general supplies. While our thousand advertisers are usually able to furnish the material desired, yet there are many things wanted by our readers that are not advertised, although connected with engineering and contracting directly or indirectly. This department (R-W) is for this class of inquiries, and we urge our readers to keep us informed. Enclose five cents in stamps and we write to a number of leading manufacturers without further cost. When writing to our advertisers, who are the leaders in their respective lines, mention Engineering News. Have you a copy of our Buyers' Guide? Engineering News Can Help Buyers.**

CURB STONE.—Bridgeport, Conn.—J. J. Anderson & Co. writes us that they are in the market for curb stone direct from the quarries.

CATALOGUES.—San Francisco, Cal.—The Harbor Construction Co., 821 Eddy St., San Francisco, Cal., desire catalogues of contractors' supplies.

SURFACING MACHINE.—Mexico City, Mex.—We are informed that V. R. Garfias, Liverpool 428, Mexico City, is in the market for machine for surfacing wood floors.

LOCOMOTIVE CRANE.—Joplin, Mo.—The Bartlett Steel Co., Joplin, Mo., is in the market for a locomotive crane of three or five tons capacity, either new or second-hand.

ROCK CRUSHER.—Springfield, Ill.—The Culver Construction Co., of Springfield, Ill., writes us that it is in the market for a new or second-hand, small or medium-sized rock crusher.

FLAG STONE.—Moorestown, N. J.—Walter S. French, Moorestown, N. J., writes us that he is desirous of communicating with owners of quarries of flag stone for sidewalk construction.

TRENCHING MACHINES. — Knierem, Iowa.—Moeller Brothers wish to correspond with trench machine firms in connection with their contract for drainage work in Rockwell City.

SOUNDING ROD.—Alsen, N. Y.—We are in receipt of a letter from Alsen's American Portland Cement Works, Alsen, N. Y., in which it states they are in the market for a sounding rod about 25 ft. long.

PIG LEAD.—Norfolk, Va.—We are in receipt of a letter from James S. Hall, 504 Citizens Bank Bldg., Norfolk, Va., in which he states that he is in the market for 65,000 lbs. of pig lead, delivery to begin July 15, 1906.

ROCK CRUSHER, ROAD ROLLER, SPREADING WAGONS, ETC.—Alexandria Bay, N. Y.—J. S. Keeler, Engr., Alexandria Bay, N. Y., informs us that he is in the market for a rock crusher with bins and screen, a road roller, and spreading wagon.

DEEP WELL PUMPS AND FIXTURES, WATER AND SEWER PIPE AND ONE 100-HP. BOILER.—Greensboro, N. C.—J. M. Bandy, Greensboro, N. C., informs us that he is in the market for deep well pumps, with fixtures and borings, water and sewer pipe, and one 100-HP. boiler.

FRICTION CLUTCH PULLEY.—Bisbee, Ariz.—We are in receipt of a letter from the Bisbee-Naco Water Co., Bisbee, Ariz., in which it states that it is in the market for a 72-in. × 14-in. friction clutch pulley to develop 75 HP. at 160 r. p. m., and to fit on a 5½-in. shaft. Also other pulleys of similar kind.

STEAM SHOVEL, LOCOMOTIVES, ETC.—Washington, D. C.—J. F. Donahoo, Bond Bldg., Washington, D. C., informs us that he is in the market for three Model "60" Marion steam shovels for immediate delivery. Also for ten locomotives, Vulcans preferred. Also 50 three, four, six or twelve-yard two-way dump cars, K. & J. preferred.

---

PAVING. — Veracruz, Veracruz. — THE MEXICAN CONSTRUCTION & ENGINEERING CO., of the City of Mexico, has been awarded the contract for paving a number of streets in the City of Veracruz with asphalt.

CORSET FACTORY.—Torreon, Coahuila.—Arrangements are being made for establishing a corset factory at Torreon, Coah., to cost about $150,000, and employ 300 people. The most modern machinery will be imported from the United States.

SCHOOL BUILDING.—Saltillo, Coahuila.—The state government has awarded the contract for the erection of a normal school building in the city of Saltillo to W. DEPEW & CO., of the city of Durango. The cost of the building will be $200,000.

PUMPING PLANT.—City of Mexico.—The Dept. of Public Works has contracted with the firm of SCHONDUBE & NEUGEBAUER, of the City of Mexico, for the installation of four 100-HP. triple-faced electric motors at the San Lazaro water plant, the installation to be completed by Aug. 15, at $20,000.

RAILWAY.—Zacatecas.—Walter C. Palmer, of the city of Zacatecas, has obtained a concession from the state government for a railway from the Gutierrez station on the Mexican Central line, into the Sombrerete district. The line will be about 25 miles, and is estimated to cost about $2,500,000.

RAILWAY.—Guadalajara-Tepic.—Within a month the preliminary surveys for the Southern Pacific Ry. Co. between Guadalajara, Jalisco, and Tepic, capital of the territory of the same name, will be completed, and the definite location of the line will be then made. Very heavy work will be necessary in portions of the line.

RAILWAY.—Guadalajara-Chapala, Jalisco.—The location of the first 14 kilos. of the line of the Jalisco & Michoacan Ry. Co. has been completed by the firm of JOHN W. SHEPARD & CO., of Mexico City, the contractors for construction, and work will commence as soon as plans are approved by the governor of Jalisco.

HOSPITAL.—Guadalajara, Jalisco. — The Mexican Central Ry. Co. is to construct a hospital at Guadalajara, to cost $120,000. There will be an administration building, a general ward and isolated ward. The buildings will be of stone and brick. Plans have been prepared in the office of Lewis Kingman, Ch. Engr., City of Mexico.

RAILWAY.—Irapuato-Morelia.—Work is to commence at once on the first division of the Morelia and Tacambaro Ry., extending from Irapuato, state of Guanajuato, to Puruandiro, a distance of 12 miles, which it is expected to complete in about six months. It is intended to finish the whole road, which will be 50 miles long, before the end of 1907.

ELECTRIC PLANT.—Mixquiahuaja, Hidalgo.—For the purpose of increasing the amount of electric power now furnished to Pachuca, and supplying surrounding towns and enterprises with electricity, the Compania Electrica e Irrigadora de Hidalgo, now operating a large plant at Tlaxcoapam, will establish a new plant at Mixquiahuaja, within a short distance of the existing plant.

RAILWAY.—Morelia-Tacambaro. — HAMPSON & SMITH, No. 7 Calle Rosales, City of Mexico, have been awarded the contract to build the first 80 kilometers of the Morelia & Tacambaro Ry., extending from Irapuato, state of Guanajuato, to Puruandiro. Construction will commence within thirty days, and the section completed within eight months. The contract price is about $1,250,000.

RAILWAY BRIDGE.—Matamoras-Brownsville.—An agreement has been reached between the National Lines and the St. Louis, Brownsville & Mexico Ry. Co. to erect the bridge to connect the two lines between Brownsville and Matamoras. The bridge will be of stone and steel, in three spans, with foot and wagon ways, in addition to the railway. The middle span will be a draw, allowing 60 ft. of clear channel.

UNION TERMINAL.—Veracruz, Veracruz.—The approval of the government has been given to the plans for the grand union terminal on the water front at Veracruz, and preparations for construction will soon commence. This is one of the greatest projects planned by the railways in Mexico, an estimated expenditure of $6,000,000 being involved. The terminal will be entered by the Mexican, Interoceanic, Veracruz and Pacific and the Veracruz railways.

ELECTRIC TRAM LINES.—Guadalajara, Jalisco.—The Compania Industrial de Guadalajara has let the contract for the construction and equipment of its projected line of electric railway to SCHONDUBE & NEUGEBAUER, of the City of Mexico. The length of the line will be about two miles. Power for the operation of the line will be furnished from a hydro-electric plant now owned and operated by the Cia. Industrial. The amount of the contract is about $250,000.

IRRIGATION SYSTEM.—Aguascalientes.—The Arena family, owners of the Hacienda del Saucillo, near the town of Rincon de Romas, state of Aguascalientes, are to construct a very extensive system of irrigation, estimated to cost about $3,000,000, which will irrigate 150,000 acres of land of the hacienda. The work is under the superintendence of L. E. Gonzalez, of New York, who is arranging for the construction of a tunnel, one mile long, to pierce a mountain, through which the water will be passed.

PORT WORKS.—Coatzacoalcos and Salina Cruz.—The federal government, represented by Leandro Fernandez, Engr. of Public Works and Communications, has contracted with S. PEARSON & SON, Limited, represented by JOHN B. BODY, for additional work on the port improvements at Coatzacoalcos, state of Veracruz, and Salina Cruz, state of Oaxaca. These ports are the termini of the Tehuantepec National Ry. A total of $65,000,000, including the value of work already done, is covered by the contract.

PORT WORKS.—Manzanillo, Colima.—An additional appropriation of $5,000,000 will be necessary to complete the port works at Manzanillo, contracted for by COL. EDGAR K. SMOOT. The additional construction will include extension of the breakwater for 350 ft.; the completion of the Ventanitas canal, to drain the Cuyutlan lagoon, and the construction of a breakwater at the canal entrance, and ten masonry piers, each 700 ft. long, 20 ft. wide at the shore line and 75 ft. wide at the point. Col. Smoot estimates it will require three years to complete the work.

HYDRO-ELECTRIC PLANT AND WAGON ROAD.—San Dimas, Durango.—Col. Daniel M. Burns, of San Francisco, Cal., Gen. Mgr. of the Candelaria and other mines in the San Dimas district of Durango, will build a wagon road from Mazatlan, Sinaloa, to San Dimas. The road will be over 100 miles long, and is estimated to cost $80,000. Following the completion of the road Col. Burns will ship into the San Dimas district machinery for a hydro-electric plant with a capacity of 5,000 HP. The plant will supply power to all mines and mills in the district, and possibly to other mining camps in the states of Durango and Sinaloa.

RAILWAY.—Tuxpan, Veracruz.—The Mexican Central Ry. Co. contemplates the construction, from some point on the line, of the projected short line from Tampico to the City of Mexico, of a line to Tuxpan, on the Gulf of Mexico.

The National Ry. Co. has purchased the Hidalgo Ry., and the line will be extended to Tuxpan, state of Veracruz, and from there to Tampico, and probably to Matamoras, to connect with the St. Louis, Brownsville & Mexico Ry. The Hidalgo Ry., at present, is a narrow gage line, but it is expected it will be changed to standard gage. The National Ry. Co. has two locating parties in the field, one studying the proposed line from Salamanca, State of Guanajuato, to the City of Guadalajara, Jal., and the other between San Felipe, also in Guanajuato, and Guadalajara. The latter line will be about 70 miles in length, and it is reported will be constructed as soon as possible. The Salamanca line will, it is expected, be built if no engineering difficulties are encountered. It is reported that the Interoceanic railway extension from Teziutlan to the oil fields will soon be constructed. J. M. Reid, Ch. Engr. of the National, recently examined the proposed route, and it is expected his report will be favorable, and that a definite decision will be made after the report is submitted to the company. The engineers of the National have completed the location for the extension of the line from San Lazaro to Indianilla, in the Federal Dist., and construction will, it is expected, commence soon. The extension will connect with all the factories in the district, and with the San Rafael and Atlixco Ry. A three-rail track for standard and narrow gage service will be laid. J. M. Reid, City of Mexico, is Ch. Engr.

◆

## CIVIL SERVICE EXAMINATIONS

ASSISTANT CIVIL ENGINEER AND LEVELER.—Albany, N. Y.—Examinations will be held on July 7 by the New York State Civil Service Commission for the positions of Assistant Civil Engineer, at $5 to $6 a day, and Leveler, at $4.50 to $5 a day. Charles S. Fowler is Ch. Examiner. (Advertised, Engineering News.)

IRRIGATION FARMER.—Phoenix, Ariz.—The U. S. Civil Service Commission announces an examination on July 11, 1906, to secure eligibles to fill a vacancy in the position of farmer (farming by irrigation) at Phoenix, Ariz., at $750 a year, and similar vacancies as they may occur in the Indian Service. Age limit, 20 years. Application form 1093.

MAP DRAFTSMEN, RODMEN AND CIVIL ENGINEER.—Chicago, Ill.—The Civil Service Commission of Chicago will hold original entrance examinations for the positions of Map Draftsmen on June 19, and Rodmen on June 20. Also a promotion examination on June 21 for those who have been in the employ of the city for one year, in the positions of Civil Engineers.

PUMPING ENGINEER.—Fort McPherson, Atlanta, Ga.—An examination will be held on July 5 by the U. S. Civil Service Commission to secure eligibles to fill a vacancy in the position of engineer in the Quartermaster's Department at Large, Fort McPherson, Ga., at $1,200 a year, and vacancies as they may occur in any branch of the service requiring similar qualifications. Age limit, 20 years. Application form 1093.

ARCHITECTURAL AND STRUCTURAL STEEL DRAFTSMAN.—Tompkinsville, N. Y.—An examination will be held July 5-6 by the U. S. Civil Service Commission to secure eligibles to fill a vacancy in the position of draftsman (architectural and steel), at $100 a month, under the engineer of the Third Light-House District, at Tompkinsville, N. Y., and vacancies as they may occur in any branch of the service requiring similar qualifications. Age limit, 20 years. Application form 1312.

ENGINEER AND MILLER.—Arizona.—An examination will be held on July 18, by the U. S. Civil Service Commission, to secure eligibles to fill a vacancy in the position of engineer and miller, $900 a year, at the San Carlos Agency, Ariz., and vacancies as they may occur in any branch of the service requiring similar qualifications. As no eligibles were secured as the result of the examination held on May 16, 1906, for this position, qualified persons are urged to enter this examination. Age limit, 20 years. Application form 1093.

AID, COAST AND GEODETIC SURVEY.—Washington, D. C.—The U. S. Civil Service Commission announces a postponement to June 27-28 (in view of the small number of applications filed), of the examination scheduled for June 6-7, to secure eligibles to fill at least six vacancies in the position of aid in the Coast and Geodetic Survey, at $720 a year each, and similar vacancies as they may occur in that Survey. As the Commission has experienced considerable difficulty in securing a sufficient number of eligibles to meet the needs of the service, qualified persons are urged to enter this examination. Age limit, 18 to 25 years. Application form 1312.

TOPOGRAPHIC DRAFTSMAN.—Panama Canal.—A postponement is announced by the U. S. Civil Service Commission to June 27-28, 1906 (in view of the small number of applications filed), of the examination scheduled for June 6-7, to secure eligibles to fill vacancies as they may occur in the position of topographic draftsman, Department of Construction and Engineering, on the Isthmus of Panama, at salaries of $100 or $125 a month, the usual entrance salary being $100 a month. As no eligibles were secured as the result of the examination held on April 4, 1906, qualified persons are urged to enter this examination. Age limit, 20 years. Application form 1312.

SURVEYOR.—Philippine Islands.—The U. S. Civil Service Commission announces an examination on July 11-12, 1906, to secure eligibles to fill at least eighteen vacancies in the position of surveyor, at $1,400 a year each, in the Philippine Service, and similar vacancies as they may occur in that service. The Department states that the appointment of about forty additional surveys is contemplated in the near future. As the Commission has experienced considerable difficulty in securing eligibles for this position, an examination having been held on March 21-22, 1906, qualified persons are urged to enter this examination. Age limit, 18 to 40 years. Application forms 2 and 375.

## CONTRACT PRICES.

**[Where (*) precedes items under Contract Prices the work was advertised in Engineering News.]**

PAVING.—New York, N. Y.—Bids for asphalt and asphalt block paving on various streets in Manhattan Borough were received June 14 by John F. Ahearn, Boro. Pres. The bidders were: (a) Barber Asphalt Paving Co., 114 Liberty St.; (b) Harlem Contracting Co., 41 Wall St.; (c) Sicilian Asphalt Paving Co., 41 Park Row; (d) Uvalde Asphalt Paving Co., 1 Broadway.

Bids received June 14, at New York, N. Y., for paving Broadway from Manhattan St. to 135th St.:

| | (a) | (b) |
|---|---|---|
| 19,200 sq. yds. asphalt block.. | $1.54½ | $1.61 |
| 2,550 cu. yds. concrete ...... | 4.17 | 4.32 |
| 2,800 lin. ft. new curb...... | .79 | .86 |
| 850 lin. ft. old curb....... | .31 | .35 |
| 2 sewer covers ......... | 14.00 | 15.00 |
| 6 water covers.......... | 14.00 | 15.00 |
| Total .................... | $42,648 | $44,395 |

Bids received June 14, at New York, N. Y., for paving Eighth Ave., from 13th St. to Columbus Circle:

| | (c) | (d) | (a) |
|---|---|---|---|
| 57,987 sq. yds. asphalt ........... | $1.81 | $1.65 | $1.34½ |
| 50,000 sq. yds. old asphalt ......... | .12 | .01 | .12 |
| 1,600 cu. yds. concrete ............ | 4.60 | 5.00 | 6.33 |
| 2,500 lin. ft. new curb ............ | .80 | .80 | .84 |
| 1,000 lin. ft. old curb ............ | .30 | .35 | .33 |
| 89 sewer and water covers .......... | .14 | .15 | .15 |
| Total ........... | $121,700 | $107,715 | $97,763 |

Bids received June 14, at New York, N. Y., for paving Seventh Ave., from 110th St. to 153d St.:

| | (b) | (a) |
|---|---|---|
| 5,800 cu. yds. excavation.. | $1.25 | $1.04 |
| 5,000 cu. yds. loam....... | 1.60 | 1.50 |
| 10,700 cu. yds. concrete.... | 4.43 | 4.00 |
| 25,300 lin. ft. new curb.... | .86 | .78 |
| 11,400 lin. ft. old curb..... | .32 | .31 |
| 91,500 sq. yds. asphalt block | 1.58 | 1.72½ |
| 80,000 sq. ft. sod ......... | .03 | .02 |
| 740 cu. yds. manure.... | 3.00 | 1.90 |
| 10 sewer covers ...... | 20.00 | 14.00 |
| 10 water covers ...... | 25.00 | 14.00 |
| Total .................. | $237,697 | $240,724 |

◆

## INDUSTRIAL NOTES.

THE ART CONCRETE & CONSTRUCTION COMPANY, of Evergreen, Long Island, has recently added two more Hayden automatic concrete machines to its equipment. This company is doing extensive business in the manufacture and sale of concrete blocks, and the recent enlargement of the plant, including the addition of two of the 1906 model block machines, indicates the extent of the growth of the cement industry in this section.

HENRY PELS & CO., 68 Broad St., New York, whose specialty is the manufacturing of punches and shears for the structural and boiler trade, have sent a large stock of machinery to San Francisco, where same is kept in stock for prompt delivery. The stock comprises hand-power beam punches and beam shears, also miscellaneous punches and shears of different capacities. The demands of the Pacific coast trade will be supplied from the San Francisco stock.

THE ELECTRIC CABLE COMPANY, of Bridgeport, Conn., has just installed an underground conduit system for the American Railways Company, at Altoona, Pa. This conduit system was laid in wooden trenches in which the wires were embedded in Voltax, the new insulating compound which is being extensively adopted by the railway companies throughout the country. The American Railways Company has found this system so effective that they have recently placed large orders with the Electric Cable Company for further work.

THE CROCKER-WHEELER COMPANY, of Ampere, N. J., report the following sales: The Seton Leather Co., of Newark, N. J., one 90-HP., 115-volt, direct-current motor to operate the company's leather machinery. The Sandusky Portland Cement Co., two engine-type, 750-KW., 440-volt alternating current generators, and two engine-type, 125-KW., 125-volt direct current generators, to furnish light and power for driving cement machinery at its new plant at Dixon, Ill. The company has recently placed on the market a size 83D engine-type generator, with an output of 75-KW., 275 r. p. m., 125 or 250 volt, and have in the past few days received from four power users orders for six of these new generators. Negotiations are now under way for a number of these already popular machines for plants in different parts of the country.

THE RAMSEY ENGINE COMPANY, with offices in the Bullitt Building, Philadelphia, has been formed for the purpose of exploiting the Ramsey Crank Mechanism, which is a device applicable to all single-acting engines. A number of advantages are claimed for this device, and it is stated that in a series of tests made under the supervision of the University of Pennsylvania on a vertical engine having a 9-in. cylinder and 7-in. crank a total efficiency of 25.9% was obtained, which is very extraordinary for an engine of such dimensions. The officers of the Ramsey Engine Company are: President, Robert H. Ramsey, who is the inventor of the Ramsey Crank Mechanism; Vice-President and General Manager, Russell H. Ramsey, Secretary and Treasurer; R. Howard Eisenbrey. Mr. Russell H. Ramsey and Mr. Eisenbrey were formerly connected with the Harrison Safety Boiler Works, of Philadelphia. It is understood that the new company will not manufacture engines, but that it will issue license rights to engine manufacturers.

(Continued on page 237.)

MACADAM ROAD.—Youngstown, Ohio.—The following are itemized bids received by F. M. Lillie, City Engr., for macadamizing the Youngstown and Boardman Road; (a) G. A. Gialdini & Co., Girard, Ohio; (b) L. H. Young, Mineral Ridge, Ohio; (c) Howley Construction Co., Pittsburg, Pa.; (d) W. W. KELLEY, McKeesport, Pa. ([illegible]warded contract); (e) W. E. Sprague, Yo[illegible]town, Ohio; (f) P. Joyce, Youngstown, Oh[illegible]

### BIDS FOR MACADAMIZING THE YOUNGSTOWN AND BOARDMAN ROAD, YOUNGSTOWN, OHIO.

| | (a) | (b) | (c) | (d) | (e) | (f) |
|---|---|---|---|---|---|---|
| 22,000 cu. yds. earth excavation | $6,380.00 | $7,700.00 | $9,460.00 | $7,700.00 | $7,700.00 | $7,700.00 |
| 6,550 gross tons limestone | 14,737.50 | 15,261.50 | 11,790.00 | 13,231.00 | 14,737.[illegible] | 14,062.50 |
| 6,550 gross tons furnace slag | 11,397.00 | 13,100.00 | 9,497.50 | 11,200.00 | 11,135.[illegible] | 11,462.50 |
| 4,900 lin. ft. drain tile | 294.00 | 367.50 | 122.50 | 392.00 | 154.[illegible] | 318.50 |
| 144 lin. ft. 8-in. iron pipe | 126.72 | 129.74 | 119.52 | 145.44 | 135.7[illegible] | 126.72 |
| 48 lin. ft. 10-in. iron pipe | 62.40 | 66.24 | 49.92 | 61.92 | 64.[illegible] | 55.20 |
| 12 lin. ft. 12-in. iron pipe | 18.90 | 19.35 | 15.00 | 15.00 | 18.[illegible] | 19.18 |
| 36 lin. ft. 14-in. iron pipe | 81.00 | 84.90 | 66.00 | 78.84 | 86.2[illegible] | 72.00 |
| 12 lin. ft. 18-in. iron pipe | 37.80 | 39.40 | 29.40 | 35.40 | 40.[illegible] | 33.00 |
| 72 lin. ft. 20-in. iron pipe | 266.40 | 277.20 | 208.80 | 259.20 | 295.2[illegible] | 234.00 |
| 72 lin. ft. 24-in. iron pipe | 334.80 | 343.80 | 257.40 | 316.80 | 357.[illegible] | 288.00 |
| 25 cu. yds. concrete | 200.00 | 200.00 | 175.00 | 200.00 | 187.5[illegible] | 187.50 |
| 10,000 sq. ft. gutter paving | 1,250.00 | 1,350.00 | 1,000.00 | 8,000.00 | 1,000.00 | 550.00 |
| 420 lin. ft. stone drains | 54.60 | 63.00 | 42.00 | 50.40 | 42.00 | 84.00 |
| Total | $35,241.12 | $39,002.63 | $32,833.04 | $34,489.80 | $36,314.5[illegible] | $35,310.42 |

*SEWERAGE.—New Orleans, La.—Bids were received on May 8 by F. S. Shields, Secy. Sewerage and Water Board, for constructing sewers, in four sections. The bids in detail and the bidders were as follows: Contract U—(1) Irwin Bros., New Orleans; (2) A. L. Patterson & Co., Ma[illegible], Ga.; (3) Talbott, Uhl Construction Co., [illegible]ansport, Ind.; (4) R. C. Storrie, New Or[illegible].

### BIDS RECEIVED ON MAY 8 FOR SEWERAGE, CONTRACT U, AT NEW ORLEANS, LA.

| | Quantity. | (1) | (2) | (3) | (4) |
|---|---|---|---|---|---|
| For all 27-in. double strength pipe sewers, 10-12 ft. deep | 450 ft. | $5.00 | $6.25 | $6.20 | $7.00 |
| For all 27-in. double strength pipe sewers, 12-14 ft. deep | 200 ft. | 7.00 | 7.75 | 6.47 | 7.50 |
| For all 24-in. double strength pipe sewers, 10-12 ft. deep | 1,100 ft. | 4.00 | 5.25 | 4.53 | 6.00 |
| For all 24-in. double strength pipe sewers, 12-14 ft. deep | 1,100 ft. | 6.00 | 6.75 | 5.20 | 6.50 |
| For all 21-in. double strength pipe sewers, 10-12 ft. deep | 1,400 ft. | 3.60 | 4.50 | 4.40 | 5.00 |
| For all 21-in. double strength pipe sewers, 12-14 ft. deep | 1,350 ft. | 4.60 | 5.50 | 5.00 | 5.50 |
| For all 18-in. double strength pipe sewers, 10-12 ft. deep | 900 ft. | 3.50 | 4.00 | 3.49 | 4.00 |
| For all 18-in. double strength pipe sewers, 12-14 ft. deep | 300 ft. | 3.70 | 4.50 | 4.00 | 4.50 |
| For all 12-in. pipe sewers, 8-10 ft. deep | 1,000 ft. | 2.00 | 2.50 | 1.90 | 2.00 |
| For all 12-in. pipe sewers, 10-12 ft. deep | 600 ft. | 2.70 | 3.00 | 2.35 | 2.25 |
| For all 10-in. pipe sewers, 6- 8 ft. deep | 300 ft. | 1.20 | 1.75 | 1.25 | 1.75 |
| For all 10-in. pipe sewers, 8-10 ft. deep | 950 ft. | 1.80 | 2.00 | 1.91 | 1.85 |
| For all 8-in. pipe sewers, 0- 6 ft. deep | 24,500 ft. | .70 | .75 | .85 | .70 |
| For all 8-in. pipe sewers, 6- 8 ft. deep | 38.300 ft. | .85 | .85 | .90 | .90 |
| For all 8-in. pipe sewers, 8-10 ft. deep | 14,500 ft. | 1.20 | 1.25 | 1.10 | 1.20 |
| For all 8-in. pipe sewers, 10-12 ft. deep | 850 ft. | 1.60 | 1.50 | 1.65 | 1.50 |
| For all 6-in. grade "A" house connections | 1,000 ft. | .50 | .60 | .60 | .75 |
| For all 6-in. grade "B" house connections | 2,000 ft. | .40 | .50 | .60 | .50 |
| For all 6-in. stand-pipe for each vertical foot | 1,000 ft. | .20 | .20 | .20 | .20 |
| For each manhole complete under 6 ft. | 20 | 45.00 | 55.00 | 45.00 | 50.00 |
| For each manhole complete over 6 ft. and under 8 ft. in depth | 75 | 55.00 | 65.00 | 53.00 | 55.00 |
| For each manhole complete over 8 ft. and under 10 ft. in depth | 50 | 65.00 | 75.00 | 60.00 | 60.00 |
| For each manhole complete over 10 ft. and under 12 ft. in depth | 5 | 80.00 | 85.00 | 73.00 | 65.00 |
| For each manhole complete 12 ft. in depth | 20 | 85.00 | 100.00 | 80.00 | 70.00 |
| For each flush tank | 70 | 65.00 | 70.00 | 60.00 | 75.00 |
| For each 5-in. flushing siphon furnished | 70 | 15.00 | 16.50 | 18.00 | 25.00 |
| For each cu. yd. extra concrete, grade "A" | 150 cu. yds. | 6.00 | 7.00 | 9.00 | 12.00 |
| For each cu. yd. extra concrete, grade "B" | 50 cu. yds. | 4.50 | 6.00 | 7.00 | 11.00 |
| For each cu. yd. extra concrete, grade "C" | 50 cu. yds. | 4.00 | 5.00 | 6.00 | 10.00 |
| For each cu. yd. of extra brick work laid in Portland cement mortar | 100 cu. yds. | 5.00 | 8.00 | 10.00 | 13.00 |
| Extra excavation under 16 ft. deep, per cu. yd. | 200 cu. yds. | 1.00 | 1.50 | 1.50 | 2.00 |
| Street pavements taken up and relaid for each sq. yd. of asphalt | 600 sq. yds. | 3.00 | 3.00 | 4.00 | 4.00 |
| Street pavements taken up and relaid for each sq. yd. of Belgian block | 35 sq. yds. | 2.00 | 1.00 | .60 | 2.00 |
| Street pavements taken up and relaid for each sq. yd. of square block | 2,700 sq. yds. | .40 | .15 | .75 | 1.00 |
| Street pavements taken up and relaid for each sq. yd. of cobble stone | 150 sq. yds. | .50 | .10 | .60 | 1.00 |
| Street pavements taken up and relaid for each sq. yd. of gravel | 8,700 sq. yds. | .50 | .10 | .75 | .75 |
| Street pavements taken up and relaid for each sq. yd. of shell | 600 sq. yds. | .50 | .10 | .60 | .75 |
| Street pavements taken up and relaid for each lin. ft. of plank | 4,000 lin. ft. | .20 | .30 | .40 | 1.00 |
| Old plank pavement taken up & replaced with new lumber, each M. ft. B.M. | 1,000 ft. B.M. | 21.00 | 21.00 | 21.00 | 21.00 |
| Banquette pavement taken up and relaid for each sq. yd. of Schillinger | 2,000 sq. yds. | .80 | .50 | 1.35 | 3.00 |
| Banquette pavement taken up and relaid for each sq. yd. of brick | 3,500 sq. yds. | .60 | .30 | .75 | 1.50 |
| Banquette pavement taken up and relaid for each sq. yd. of flagging | 500 sq. yds. | .50 | .35 | .50 | 1.00 |
| Foundation lumber under pipe sewers, class 1, for each M. ft. B. M. | 20,000 ft. B.M. | 25.00 | 25.00 | 25.00 | 25.00 |
| Foundation lumber under pipe sewers, class 2, for each M. ft. B. M. | 30,000 ft. B.M. | 30.00 | 30.00 | 30.00 | 30.00 |
| Foundation material under sewers for each cu. yd. of cinders furn. & placed. | 250 cu. yds. | 1.00 | 1.25 | 2.25 | 2.50 |
| Foundation material under sewers for each cu. yd. of oyster shells do. | 50 cu. yds. | 2.00 | 3.00 | 2.50 | 3.00 |
| Foundation material under sewers for each cu. yd. of clam shells do. | 250 cu. yds. | 2.50 | 4.00 | 2.40 | 3.00 |
| Foundation material under sewers for each cu. yd. of sand furn. & placed. | 50 cu. yds. | 1.00 | 2.00 | 2.55 | 2.50 |
| Foundation material under sewers for each cu. yd. of gravel furn. & placed. | 50 cu. yds. | 3.00 | 6.00 | 3.25 | 3.50 |
| Old curbing removed and reset, per lin. ft. | 400 lin. ft. | .30 | .20 | .25 | 1.00 |
| For each bench mark furnished and set | 6 | 17.50 | 15.00 | 10.00 | 25.00 |
| Total | | $139,061 | $146,061 | $152,539 | $168,893 |

Contract V—(1) Irwin Bros.; (2) A. L. Patterson & Co.; (3) Black & Laird, Ltd., New Orleans.

### BIDS RECEIVED ON MAY 8 FOR SEWERAGE, CONTRACT V, AT NEW ORLEANS, LA.

| | Quantity. | (1) | (2) | (3) |
|---|---|---|---|---|
| For all 27-in. double strength pipe sewers, 10-12 ft. deep | 1,600 ft. | $6.00 | $6.75 | $7.90 |
| For all 27-in. double strength pipe sewers, 12-14 ft. deep | 1,300 ft. | 6.50 | 7.50 | 8.90 |
| For all 24-in. double strength pipe sewers, 10-12 ft. deep | 1,150 ft. | 5.50 | 5.75 | 6.40 |
| For all 24-in. double strength pipe sewers, 12-14 ft. deep | 1,400 ft. | 6.50 | 7.00 | 7.50 |
| For all 21-in. double strength pipe sewers, 8-10 ft. deep | 300 ft. | 3.00 | 5.00 | 5.50 |
| For all 21-in. double strength pipe sewers, 10-12 ft. deep | 1,800 ft. | 5.00 | 5.50 | 6.50 |
| For all 18-in. double strength pipe sewers, 10-12 ft. deep | 750 ft. | 4.00 | 4.00 | 4.80 |
| For all 15-in. double strength pipe sewers, 8-10 ft. deep | 400 ft. | 2.50 | 2.50 | 3.40 |
| For all 15-in. double strength pipe sewers, 10-12 ft. deep | 2,900 ft. | 3.00 | 4.00 | 4.40 |
| For all 12-in. pipe sewers, 8-10 ft. deep | 300 ft. | 1.80 | 3.25 | 2.75 |
| For all 12-in. pipe sewers, 10-12 ft. deep | 400 ft. | 2.50 | 4.00 | 3.40 |
| For all 10-in. pipe sewers, 8-10 ft. deep | 450 ft. | 1.50 | 1.75 | 2.20 |
| For all 10-in. pipe sewers, 10-12 ft. deep | 400 ft. | 2.00 | 2.50 | 2.75 |
| For all 8-in. pipe sewers, 0- 6 ft. deep | 15,000 ft. | .70 | .80 | .95 |
| For all 8-in. pipe sewers, 6- 8 ft. deep | 47,700 ft. | .80 | .90 | 1.25 |
| For all 8-in. pipe sewers, 8-10 ft. deep | 21,100 ft. | 1.10 | 1.25 | 1.45 |
| For all 8-in. pipe sewers, 10-12 ft. deep | 1,700 ft. | 1.50 | 1.50 | 1.65 |
| For all 6-in. grade "A" house connections | 1,000 ft. | .50 | .60 | .75 |
| For all 6-in. grade "B" house connections | 2,000 ft. | .40 | .50 | .75 |
| For all 6-in. stand-pipe for each vertical foot | 1,000 ft. | .20 | .20 | .20 |
| For each manhole complete under 6 ft. in depth | 24 | 40.00 | 55.00 | 60.00 |
| For each manhole complete over 6 ft. and under 8 ft. in depth | 82 | 55.00 | 65.00 | 70.00 |
| For each manhole complete over 8 ft. and under 10 ft. in depth | 55 | 75.00 | 75.00 | 80.00 |
| For each manhole complete over 10 ft. and under 12 ft. in depth | 27 | 85.00 | 85.00 | 90.00 |
| For each manhole complete 12 ft. in depth | 17 | 100.00 | 100.00 | 100.00 |
| For each flush tank | 70 | 65.00 | 70.00 | 80.00 |
| For each 5-in. flushing siphon furnished | 70 | 15.00 | 16.00 | 16.00 |
| For each cu. yd. extra concrete, grade "A" | 150 cu. yds. | 6.00 | 7.00 | 12.00 |
| For each cu. yd. extra concrete, grade "B" | 50 cu. yds. | 4.50 | 5.00 | 12.00 |
| For each cu. yd. extra concrete, grade "C" | 50 cu. yds. | 4.00 | 4.00 | 12.00 |
| For each cu. yd. of extra brick work laid in Portland cement mortar | 100 cu. yds. | 5.00 | 8.00 | 15.00 |
| Extra excavation under 16 ft. deep, per cu. yd. | 200 cu. yds. | 1.50 | 1.50 | 4.00 |
| Street pavements taken up and relaid for each sq. yd. of asphalt | 840 sq. yds. | 3.00 | 3.00 | 5.00 |
| Street pavements taken up and relaid for each sq. yd. of Belgian block | 170 sq. yds. | 2.00 | 1.00 | .75 |
| Street pavements taken up and relaid for each sq. yd. of square block | 6,100 sq. yds. | .40 | .15 | .75 |
| Street pavements taken up and relaid for each sq. yd. of cobble stone | 11,300 sq. yds. | .40 | .10 | .75 |
| Street pavements taken up and relaid for each sq. yd. of gravel | 2,150 sq. yds. | .50 | .10 | .75 |
| Street pavements taken up and relaid for each sq. yd. of shell | 1,000 sq. yds. | .50 | .10 | .75 |
| Street pavements taken up and relaid for each lin. ft. of plank | 2,600 lin. ft. | .20 | .30 | .80 |
| Old plank pavement taken up and replaced with new lumber each M. ft. B. M. | 1,000 ft. B.M. | 21.00 | 21.00 | 21.00 |
| Banquette pavement taken up and relaid for each sq. yd. of Schillinger | 1,500 sq. yds. | 1.00 | .50 | 1.60 |
| Banquette pavement taken up and relaid for each sq. yd. of brick | 2,500 sq. yds. | .60 | .30 | .75 |
| Banquette pavement taken up and relaid for each sq. yd. of flagging | 600 sq. yds. | .50 | .35 | .75 |
| Foundation lumber under pipe sewers, class 1, for each M. ft. B. M. | 20,000 ft. B.M. | 25.00 | 25.00 | 25.00 |
| Foundation lumber under pipe sewers, class 2, for each M. ft. B. M. | 30,000 ft. B.M. | 30.00 | 30.00 | 30.00 |
| Foundation material under sewers for each cu. yd. of cinders furn. & placed | 250 cu. yds. | 1.00 | 1.20 | 4.00 |
| Foundation material under sewers for each cu. yd. of oyster shells do. | 50 cu. yds. | 2.00 | 3.00 | 4.00 |
| Foundation material under sewers for each cu. yd. of clam shells do. | 250 cu. yds. | 2.50 | 4.00 | 4.00 |
| Foundation material under sewers for each cu. yd. of sand furn. & placed. | 50 cu. yds. | 1.50 | 2.00 | 3.00 |
| Foundation material under sewers for each cu. yd. of gravel furn. & placed | 50 cu. yds. | 3.00 | 6.00 | 4.50 |
| Old curbing removed and reset, per lin. ft. | 400 lin. ft. | .20 | .20 | .60 |
| For each bench mark furnished and set | 6 | 15.00 | 15.00 | 30.00 |
| Total | | $174,331 | $188,351 | $2[illegible]5,831 |

Contract W—(1) **Irwin Bros.; (2) Talbott, Uhl Construction Co.; (3) A. L. Patterson; (4) M. O'Herron Co., Pittsburg, Pa.; (5) Black & Laird** L'd.

### BIDS RECEIVED ON MAY 8 FOR SEWERAGE, CONTRACT W, AT NEW ORLEANS, LA.

| | Quantity. | (1) | (2) | (3) | (4) | (5) |
|---|---|---|---|---|---|---|
| For all 15-in. **double strength pipe sewers, 12-14 ft. deep** | 250 ft. | $3.00 | $3.25 | $4.50 | $4.25 | $5.25 |
| For all 15-in. **double strength pipe sewers, 14-16 ft. deep** | 850 ft. | 4.50 | 3.35 | 5.50 | 5.00 | 6.65 |
| For all 12-in. **pipe sewers, 8-10 ft. deep** | 300 ft. | 1.50 | 1.80 | 2.00 | 2.00 | 2.75 |
| For all 12-in. **pipe sewers, 10-12 ft. deep** | 1,000 ft. | 2.10 | 2.20 | 2.50 | 2.40 | 3.40 |
| For all 12-in. **pipe sewers, 12-14 ft. deep** | 500 ft. | 2.90 | 2.70 | 3.75 | 3.90 | 4.55 |
| For all 12-in. **double strength, 14-16 ft. deep** | 700 ft. | 4.00 | 3.30 | 5.00 | 4.50 | 5.85 |
| For all 10-in. **pipe sewers, 8-10 ft. deep** | 1,400 ft. | 1.20 | 1.71 | 1.75 | 2.00 | 2.20 |
| For all 10-in. **pipe sewers, 10-12 ft. deep** | 200 ft. | 2.00 | 2.00 | 2.25 | 2.30 | 2.75 |
| For all 8-in. **pipe sewers, 0- 6 ft. deep** | 14,100 ft. | .75 | .80 | .85 | .80 | .95 |
| For all 8-in. **pipe sewers, 6- 8 ft. deep** | 59,500 ft. | .85 | .95 | .95 | 1.10 | 1.25 |
| For all 8-in. **pipe sewers, 8-10 ft. deep** | 13,700 ft. | 1.10 | 1.05 | 1.70 | 1.60 | 1.45 |
| For all 8-in. **pipe sewers, 10-12 ft. deep** | 3,350 ft. | 1.70 | 1.50 | 2.20 | 2.40 | 1.65 |
| For all 8-in. **pipe sewers, 12-14 ft. deep** | 1,100 ft. | 2.25 | 2.00 | 3.00 | 3.40 | 2.90 |
| For all 6-in. **grade "A" house connections** | 1,000 ft. | .60 | .60 | .60 | 1.00 | .75 |
| For all 6-in. **grade "B" house connections** | 2,000 ft. | .40 | .60 | .50 | .60 | .75 |
| For all 6-in. **stand-pipe, for each vertical ft** | 1,000 ft. | .20 | .20 | .20 | .20 | .20 |
| For each manhole **complete under 6 ft. in depth** | 28 | 35.00 | 45.00 | 55.00 | 50.00 | 60.00 |
| For each manhole **complete over 6 ft. and under 8 ft. in depth** | 103 | 53.00 | 53.00 | 65.00 | 65.00 | 70.00 |
| For each manhole **complete over 8 ft. and under 10 ft. in depth** | 41 | 67.00 | 60.00 | 75.00 | 75.00 | 80.00 |
| For each manhole **complete over 10 ft. and under 12 ft. in depth** | 15 | 85.00 | 73.00 | 85.00 | 85.00 | 90.00 |
| For each manhole **complete 12 ft. in depth** | 14 | 95.00 | 80.00 | 100.00 | 95.00 | 100.00 |
| For each flush **tank** | 103 | 75.00 | 60.00 | 76.00 | 75.00 | 80.00 |
| For each 5-in. **flushing siphon furnished** | 103 | 15.00 | 18.00 | 16.00 | 17.00 | 16.00 |
| For each cu. **yd. extra concrete, grade "A"** | 150 cu. yds. | 5.00 | 9.00 | 6.00 | 9.50 | 12.00 |
| For each cu. **yd. extra concrete, grade "B"** | 50 cu. yds. | 4.50 | 7.00 | 5.00 | 8.00 | 12.00 |
| For each cu. **yd. extra concrete, grade "C"** | 50 cu. yds. | 4.00 | 6.00 | 4.00 | 7.00 | 12.00 |
| For each cu. **yd. of extra brick work laid in Portland cement mortar** | 100 cu. yds. | 5.00 | 10.00 | 8.00 | 12.00 | 15.00 |
| Extra excavation **under 16 ft. deep, per cu. yd** | 200 cu. yds. | 1.00 | 1.50 | 1.50 | 1.50 | 4.00 |
| Street pavements **taken up and relaid for each sq. yd. of asphalt** | 600 sq. yds. | 3.00 | 4.00 | 3.00 | 4.00 | 5.00 |
| Street pavements **taken up and relaid for each sq. yd. of vitrified brick** | 200 sq. yds. | 2.00 | 1.30 | 1.00 | 3.00 | 3.00 |
| Street pavements **taken up and relaid for each sq. yd. of Belgian block** | 300 sq. yds. | 2.00 | .60 | .15 | 1.50 | .75 |
| Street pavements **taken up and relaid for each sq. yd. of square block** | 1,500 sq. yds. | .40 | .75 | .10 | 1.00 | .75 |
| Street pavements **taken up and relaid for each sq. yd. of cobble stone** | 9,300 sq. yds. | .30 | .60 | .10 | .70 | .75 |
| Street pavements **taken up and relaid for each sq. yd. of gravel** | 4,500 sq. yds. | .40 | .75 | .10 | .70 | .75 |
| Street pavements **taken up and relaid for each sq. yd. of shell** | 1,600 sq. yds. | .40 | .60 | .10 | .80 | .75 |
| Street pavements **taken up and relaid for each lin. ft. of plank** | 1,200 lin. ft. | .20 | .40 | .30 | .50 | .80 |
| Old plank **pavement taken up and replaced with new lumber, each M. ft. B. M.** | 1,000 ft. B.M. | 21.00 | 21.00 | 21.00 | 21.00 | 21.00 |
| Banquette **pavements taken up and relaid for each sq. yd. of Schillinger** | 900 sq. yds. | 1.00 | 1.35 | .50 | 1.50 | 1.60 |
| Banquette **pavements taken up and relaid for each sq. yd. of brick** | 5,600 sq. yds. | .40 | .75 | .30 | 1.00 | .75 |
| Banquette **pavements taken up and relaid for each sq. yd. of flagging** | 250 sq. yds. | .50 | .50 | .35 | .70 | .75 |
| Foundation **lumber under pipe sewers, class 1, for each M. ft. B. M.** | 10,000 ft. B.M. | 25.00 | 25.00 | 25.00 | 25.00 | 25.00 |
| Foundation **lumber under pipe sewers, class 2, for each M. ft. B. M.** | 10,000 ft. B.M. | 30.00 | 30.00 | 30.00 | 30.00 | 30.00 |
| Foundation **material under sewers for each cu. yd. of cinders furn. & placed.** | 250 cu. yds. | 1.00 | 2.50 | 1.20 | 2.00 | 4.00 |
| Foundation **material under sewers for each cu. yd. of oyster shells do.** | 50 cu. yds. | 1.50 | 2.50 | 3.00 | 2.50 | 4.00 |
| Foundation **material under sewers for each cu. yd. of clam shells do.** | 200 cu. yds. | 2.50 | 2.40 | 4.00 | 3.00 | 4.00 |
| Foundation **material under sewers for each cu. yd. of sand furn. & placed.** | 50 cu. yds. | 1.00 | 2.55 | 2.00 | 2.25 | 3.00 |
| Foundation **material under sewers for each cu. yd. of gravel furn. & placed.** | 50 cu. yds. | 3.00 | 3.25 | 5.00 | 2.75 | 4.50 |
| Old curbing **removed and reset, per lin. ft.** | 400 lin. ft. | .40 | .25 | .30 | .50 | .60 |
| For each bench **mark furnished and set** | 6 | 17.00 | 10.00 | 15.00 | 30.00 | 30.00 |
| Total | | $136,374 | $149,148 | $155,431 | $182,469 | $196,754 |

Contract **X—(1) A. L. Patterson & Co.; (2) Talbott, Uhl Construction Co.; ()3 Irwin Bros.** W. J. Hardee is City Engr.; George W. Earl is Supt. **W.-Wks. and Sewers.**

### BIDS RECEIVED ON MAY 8 FOR SEWERAGE, CONTRACT X, AT NEW ORLEANS, LA.

| | Quantity. | (1) | (2) | (3) |
|---|---|---|---|---|
| For all 15-in. **double strength pipe sewers, 10-12 ft. deep** | 800 ft. | $4.25 | $3.00 | $4.00 |
| For all 15-in. **double strength pipe sewers, 12-14 ft. deep** | 400 ft. | 5.25 | 3.25 | 4.50 |
| For all 12-in. **pipe sewers, 10-12 ft. deep** | 1,100 ft. | 3.25 | 2.20 | 3.50 |
| For all 10-in. **pipe sewers, 8-10 ft. deep** | 700 ft. | 2.25 | 1.71 | 2.00 |
| For all 10-in. **pipe sewers, 10-12 ft. deep** | 400 ft. | 3.00 | 2.00 | 3.00 |
| For all 8-in. **pipe sewers, 0- 6 ft. deep** | 14,700 ft. | .80 | .80 | .80 |
| For all 8-in. **pipe sewers, 6- 8 ft. deep** | 52,500 ft. | .90 | .95 | .90 |
| For all 8-in. **pipe sewers, 8-10 ft. deep** | 12,800 ft. | 1.35 | 1.05 | 1.20 |
| For all 8-in. **pipe sewers, 10-12 ft. deep** | 300 ft. | 2.00 | 1.50 | 1.50 |
| For all 6-in. **grade "A" house connections** | 1,000 ft. | .60 | .60 | .50 |
| For all 6-in. **grade "B" house connections** | 2,000 ft. | .50 | .60 | .45 |
| For all 6-in. **stand-pipe, for each vertical ft** | 1,000 ft. | .20 | .20 | .20 |
| For each **manhole complete under 6 ft. in depth** | 15 | 55.00 | 45.00 | 45.00 |
| For each **manhole complete over 6 ft. and under 8 ft. in depth** | 80 | 65.00 | 53.00 | 60.00 |
| For each **manhole complete over 8 ft. and under 10 ft. in depth** | 15 | 75.00 | 60.00 | 70.00 |
| For each **manhole complete over 10 ft. and under 12 ft. in depth** | 10 | 85.00 | 73.00 | 90.00 |
| For each **manhole complete 12 ft. in depth** | 5 | 100.00 | 80.00 | 100.00 |
| For each **flush tank** | 80 | 70.00 | 60.00 | 70.00 |
| For each **5-in. flushing siphon furnished** | 80 | 16.00 | 18.00 | 15.00 |
| For each **cu. yd. extra concrete, grade "A"** | 150 cu. yds. | 8.00 | 9.00 | 8.00 |
| For each **cu. yd. extra concrete, grade "B"** | 50 cu. yds. | 6.00 | 8.00 | 5.50 |
| For each **cu. yd. extra concrete, grade "C"** | 50 cu. yds. | 5.00 | 7.00 | 5.00 |
| For each **cu. yd. of extra brick work laid in Portland cement mortar** | 100 cu. yds. | 8.00 | 10.00 | 5.00 |
| Extra excavation **under 16 ft. deep, per cu. yd** | 200 cu. yds. | 1.50 | 1.50 | 1.00 |
| Street pavements **taken up and relaid for each sq. yd. of asphalt** | 80 sq. yds. | 3.00 | 4.00 | 4.00 |
| Street pavements **taken up and relaid for each sq. yd. of vitrified brick** | 450 sq. yds. | 1.00 | 1.35 | 2.00 |
| Street pavements **taken up and relaid for each sq. yd. of square block** | 1,800 sq. yds. | .15 | .75 | .70 |
| Street pavements **taken up and relaid for each sq. yd. of cobble stone** | 10,200 sq. yds. | .10 | .60 | .60 |
| Street pavements **taken up and relaid for each sq. yd. of gravel** | 50 sq. yds. | .10 | .75 | .50 |
| Street pavements **taken up and relaid for each sq. yd. of shell** | 50 sq. yds. | .10 | .60 | .50 |
| Street pavements **taken up and relaid for each lin. ft. of plank** | 250 lin. ft. | .30 | .40 | .30 |
| Old plank **pavement taken up and replaced with new lumber, each M. ft. B. M.** | 1,000 ft. B.M. | 21.00 | 21.00 | 21.00 |
| Banquette **pavements taken up and relaid for each sq. yd. of Schillinger** | 2,000 sq. yds. | .50 | 1.35 | 1.20 |
| Banquette **pavements taken up and relaid for each sq. yd. of brick** | 5,000 sq. yds. | .30 | .75 | .60 |
| Banquette **pavements taken up and relaid for each sq. yd. of flagging** | 700 sq. yds. | .35 | .50 | .50 |
| Foundation **lumber under pipe sewers, class 1, for each M. ft. B. M.** | 10,000 ft. B.M. | 25.00 | 25.00 | 25.00 |
| Foundation **lumber under pipe sewers, class 2, for each M. ft. B. M.** | 10,000 ft. B.M. | 30.00 | 30.00 | 30.00 |
| Foundation **material under sewers for each cu. yd. of cinders furn. & placed** | 250 cu. yds. | 1.20 | 2.25 | .90 |
| Foundation **material under sewers for each cu. yd. of oyster shells do.** | 50 cu. yds. | 3.00 | 2.50 | 2.00 |
| Foundation **material under sewers for each cu. yd. of clam shells do.** | 200 cu. yds. | 4.00 | 2.50 | 2.00 |
| Foundation **material under sewers for each cu. yd. of sand furn. & placed.** | 50 cu. yds. | 2.00 | 2.50 | 2.00 |
| Foundation **material under sewers for each cu. yd. of gravel furn. & placed** | 50 cu. yds. | 6.00 | 3.25 | 3.00 |
| Old curbing **removed and reset, per lin. ft.** | 400 lin. ft. | .20 | .25 | .40 |
| For each **bench mark furnished and set** | 6 | 15.00 | 10.00 | 17.50 |
| **Total** | | $115,971 | $119,798 | $121,306 |

## INDUSTRIAL NOTES.

GEORGE A. JUST, C. E., has moved **his** office to 239 Vernon Ave., Borough of Queens.

H. M. BYLLESBY & CO., consulting engineers, of Chicago, have removed to new offices in the American Trust Building, Clark and Monroe Sts.

THE C. & C. ELECTRIC COMPANY reports that it has closed an agency agreement with Mr. Geo. W. Thornburgh, 1319 Sixteenth St., Denver, Colo. Mr. Thornburgh will represent the company in the entire state of Colorado.

THE DAYTON PNEUMATIC TOOL COMPANY'S new plant at 435-7 East First St., Dayton, Ohio, has been completed, and the equipment in its works at Wayne Ave. and State St. has been moved into the new quarters. Additional machinery has been installed to further increase the capacity, which has already been greatly enlarged in the last year.

THE STANDARD OIL CO. has ordered two "Hornsby-Akroyd" oil engines of 25-HP. each, which will be shipped to Chinkiang, China, and used for pumping purposes. These engines are supplied by the De La Vergne Machine Co. of New York, who state that the use of oil engines has increased enormously in the past few years, there being now over 14,000 oil engines of the "Hornsby-Akroyd" make alone in operation.

THE ELECTRIC CABLE COMPANY, of No. 17 Battery Place, New York, has just received an additional order from the New York & Long Island Railroad Company for six miles of 300,000 C. M. Voltax cable. This order, coming as it does after one placed some months ago by the same company, for 15 miles of cable, conclusively proves the satisfaction given by Voltax, the insulating compound.

THE F. D. CUMMER & SON CO., of Cleveland, O., has just closed a contract with the Western Construction Co., of La Fayette, Ind., for a one-car Cummer portable railroad asphalt paving plant. Capacity for turning out 1,700 yards of 2-in. sheet asphalt per day of ten hours. Last month the Cummer Company shipped one of its semi-portable plants to the municipality of the city of Buenos Aires, South America.

WESTINGHOUSE CONSOLIDATED FOUNDRIES COMPANY, of Pittsburg, Pa., has applied for a charter. The object is for the various Westinghouse companies which now have foundries at Pittsburg, Allegheny City, Cleveland and Attica, N. Y., to have all their castings made in one factory, which is located at Trafford City, near Pittsburg. This plan is to assure greater economy and uniformity in the making of foundry products.

THE ALLIS-CHALMERS CO. reports that, upon the decision of the Cincinnati, Milford & Loveland Traction Co., of Cincinnati, to extend its system from Milford to Blanchester, a distance of 21 miles, it became necessary to consider the installation of a power outfit of its own. As a result, a complete equipment of Allis-Chalmers power and electrical machinery was purchased, and is now being installed, preparatory to the opening up of the new section. The power plant, when completed, will consist of two Allis-Chalmers horizontal cross compound heavy duty engines, 16-in. and 34-in. × 42-in., for direct connection to two Allis-Chalmers "Bullock" type 500-KW. generators 25 cycles, 3-phase, 400 volts. In addition to engines and generators, the equipment will include two 22½-KW. belted exciters, two 400-KW. 25-cycle rotary converters, and miscellaneous auxiliary apparatus.

THE B. F. STURTEVANT CO., of Boston reports the installation of the following Sturtevant economizers, built with metal-to-metal joints in the staggered pipe system: The Bergenport Chemical Works, Constable Hook, Bayonne, N. J.; Municipal Electric Plant, Burlington, Vt.; Orford Copper Co., Constable Hook, Bayonne, N. J.; Firth-Stirling Steel Co., Giesboro Manor, D. C.; Consolidated Railway Co., New Haven, Conn., and Norfolk & New Brunswick Hosiery Co., New Brunswick, N. J. Among recent sales of its new design vertical enclosed forced-lubrication engines are included the Dean Hardware Co., Portland, Ark.; Jas. Showan & Sons, New York City; Vulcan Detinning Co., Sewaran, N. J.; Webster Mfg. Co., Chicago, Ill.; Elyria Pumping Station, Elyria, Ohio; Pella Creamery Co., Pella, Iowa.

WATER MAINS.—**New York, N. Y.—Bids received on June 13, by Wm. B. Ellison, Comr.** of Water **Supply, Gas and Electricity, for laying water mains in various streets, were as follows: (a) Clinton Beckwith, 49 West 27th St.; (b) Tucillo & Co., 195 Grand St.;** (c) L. W. Gregory, 125th St. and First Ave.; (d) Atlanta Construction Co., 432 E. 91st St.; (e) M. O'Brien, 510 East 119th St.; (f) P. Goodman, 1868 Park Ave.; (g) D'Ambra & Co., 205th St. and Villa Ave.; (h) Chas. A. Parker; (i) John Cornwell, Jr., 69 West 127th St.; (j) Culgin-Pace Contracting Co., 787 Tremont Ave.

### BIDS RECEIVED JUNE 13, AT NEW YORK, N. Y., FOR LAYING WATER MAINS.

| | (a) | (b) | (c) | (d) | (e) | (f) | (g) | (h) | (i) | (j) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,920 **tons straight pipe** | $32.00 | $33.00 | $30.00 | $33.00 | $33.25 | $34.75 | $35.00 | $29.00 | $32.00 | $41.00 |
| 55 **tons specials** | 65.00 | 65.00 | 75.00 | 65.00 | 65.00 | 70.00 | 63.00 | 61.00 | 62.00 | 70.00 |
| 117 **tons gate valve boxes** | 60.00 | 65.00 | 50.00 | 60.00 | 65.00 | 60.00 | 58.00 | 61.00 | 52.00 | 59.00 |
| 10 **cu. yds. rock excavation, without blasting** | 10.00 | 5.00 | 10.00 | 10.00 | 10.00 | 20.00 | 10.00 | 4.50 | 6.00 | 8.00 |
| 2,035 **cu. yds. rock excavation** | 3.00 | 3.00 | 3.00 | 3.00 | .27½ | 4.00 | 3.00 | 3.00 | 3.00 | 4.00 |
| 40 **cu. yds. masonry excavation** | 1.00 | 5.00 | .23 | 2.00 | 1.00 | 4.00 | 5.00 | .01 | 3.00 | 6.00 |
| 31,500 **cu. yds. earth excavation** | .87 | .25 | .23 | .30 | .27½ | .25 | 30.00 | .22 | .22 | .20 |
| 32,190 **cu. yds. filling** | .15 | .05 | .23 | .25 | .27½ | .25 | .10 | .22 | .22 | .20 |
| 43,340 **lin. ft. 12-in. pipe** | .35 | .25 | .23 | .32 | .22 | .35 | .25 | .30 | .34 | .20 |
| 6,730 **lin. ft. 6-in. pipe** | .20 | .15 | .01 | .20 | .16 | .25 | .15 | .12 | .18 | .20 |
| 79 **12-in. gates** | .35 | 40.00 | 88.00 | 45.00 | 34.30 | 50.00 | 44.00 | 45.00 | 32.00 | 35.00 |
| 159 **6-in. gates** | .15 | 15.00 | 16.00 | 18.00 | 16.00 | 15.00 | 16.00 | 18.00 | 14.00 | 18.00 |
| 153 **double nozzle hydrants** | 35.00 | 36.00 | 37.00 | 36.00 | 41.00 | 37.50 | 35.00 | 38.00 | 32.00 | 35.00 |
| Setting **79 12-in. gates** | 10.00 | 5.00 | 5.00 | 12.00 | 5.00 | 1.00 | 2.50 | 3.75 | 6.00 | 15.00 |
| Setting **159 6-in. gates** | 5.00 | 4.00 | 5.00 | 10.00 | 4.00 | 1.00 | 1.00 | 3.00 | 5.00 | 15.00 |
| Setting **153 hydrants** | 10.00 | 10.00 | 5.00 | 15.00 | 2.00 | 5.00 | 5.00 | 5.00 | 20.00 | 15.00 |
| 1 **36 × 12 connection** | 200.00 | 200.00 | 250.00 | 400.00 | 250.00 | 500.00 | 214.00 | 100.00 | 200.00 | 150.00 |
| 10 **cu. yds. brick masonry** | 15.00 | .01 | .01 | 15.00 | .01 | 20.00 | ....... | .01 | .18 | .15 |
| 10 **cu. yds. concrete masonry** | 7.50 | .01 | .01 | 10.00 | 6.00 | 10.00 | ...... | .01 | 8.00 | 10.00 |
| 200 **sq. yds. asphalt paving** | 4.00 | 4.00 | .01 | 4.00 | 4.00 | 4.00 | ...... | 1.00 | 4.00 | 2.50 |
| 1,400 **sq. yds. macadam pavement** | .75 | .01 | .01 | .50 | .25 | .75 | ...... | .01 | .60 | .50 |
| 1,440 **sq. yds. pavement** | .40 | .01 | .01 | .40 | .60 | .75 | ...... | .01 | .40 | .50 |
| 1,930 **lin. ft. curb** | .10 | .01 | .01 | .10 | .01 | .01 | ...... | .01 | ...... | .15 |
| 100 **lin. ft. boxing for 12-in. pipe** | 5.50 | 5.00 | 5.00 | 10.00 | 5.00 | 5.00 | ...... | 100.00 | 6.00 | 7.00 |
| 500 **ft. B. M. lumber** | 25.00 | .01 | .01 | 35.00 | .01 | 40.00 | ...... | .01 | ...... | 40.00 |
| **Totals** | $125,505.00 | $117,870.90 | $112,535.00 | $133,646.80 | $124,589.70 | $135,248.80 | $121,100.00 | Informal | $124,432.80 | $145,586.50 |

THE EUREKA AUTOMATIC ELECTRIC SIGNAL CO. has established temporary business quarters at Tamaqua, Pa., its factory at Lansford, Pa., having been damaged by fire some weeks ago. The company's signal apparatus is for electric railways, and it reports recent shipments to Spokane, Wash., and Los Angeles, Cal.

THE GENERAL ELECTRIC COMPANY, which established its main office in the Union Savings Bank Building at Oakland, California, immediately after the San Francisco disaster, as well as a local office at No. 1759 Geary St., has already leased a suite of rooms in the new Monadnock Bldg., which they expect to occupy about June 15th, 1907. For handling the present business, a half a block of land has been leased in Emeryville in close proximity to both the Santa Fe and Southern Pacific Railroad tracks. A temporary building is now about completed on this land for taking care of stock, and work has already been started on a new warehouse, containing about 80,000 sq. ft. At the temporary warehouse, forty cars of material have been housed and nineteen cars of additional apparatus are now in the yards waiting to be unloaded, with thirty or forty more cars en route from Schenectady. Additional cars are being shipped from the Company's factories, so that the stock at San Francisco will soon be complete. At present the company is in excellent condition to fill orders as rapidly as before the fire.

THE CROCKER-WHEELER CO., Ampere, N. J., reports the following partial list of sales: One 60-KW. 250-volt D. C. generator and motors of 5, 7½, 12 and 15-HP., all 230-volt, to the M. S. Brown Electric Co., of Columbus, O.; one 150-KW. generator to Maher & Flockhart, Newark, N. J.; one 75-HP. motor, 230-volt, to the American Printing Co., Fall River, Mass.; one 200-KW., 250-volt direct-current generator to the American Wood-Working Machinery Co., Rochester, N. Y.; one 100-KW., 230-volt generator, and three motors of 35, 25 and 20-HP. respectively, and two motors of 10-HP. each to the Floyd Wells Co., Royersford, Pa.; three 75-KW., 250-volt generators to the Jos. MacWilliams & Co., Memphis, Tenn., and one 75-KW. H. C. generator, and one 4½-HP., 125-volt motor to the World Star Knitting Co., Bay City, Mich.

◆

## TRADE PUBLICATIONS.

LABORATORY LATHES.—Emerson Electric Mfg. Co., St. Louis, Mo. Paper; 7 × 10 ins.; pp. 4; illustrated

These are small lathes operated by direct current motors of about 0.10 HP. Sizes and prices are given.

OIL FILTERS.—Liberty Mfg. Co., 6905 Susquehanna St., Pittsburg, Pa. Paper; 6 × 9 ins., pp. 14; illustrated.

The Famous oil filter is described and illustrated in detail, several different designs being shown. Prices are given.

HOSE COUPLING.—Dayton Pneumatic Tool Co., Dayton, O. Paper; 3½ × 6¼ ins.; pp. 4; illustrated.

This describes the Gunnell coupler for pneumatic or water hose, in which the coupling is effected by a turn of the hose.

SAND MIXER AND SCREEN.—Standard Sand & Machine Co., Cleveland, O. Paper; 3½ × 5¾ ins.; pp. 8; illustrated.

The machine is for foundry and concrete work; there is very little description, six pages being occupied by a list of users.

VENTILATORS.—Meurer Bros. Co., Brooklyn, N. Y. Paper; 8½ × 5 ins.; pp. 12; illustrated.

This pamphlet gives a record of tests of the Anchor ventilators, as conducted by Mr. E. P. Goodrich, M. Am. Soc. C. E. A price list of ventilators is also given.

IMPELLER PUMPS FOR WELLS.—Roth Mfg. Co., Columbus, Ind. Paper; two pamphlets; 6 × 9 ins.; pp. 4; illustrated.

The Columbus impeller pump has the rotary impellers inserted in the well, the shaft extending above the surface and being fitted with a driving pulley. Sizes, prices and testimonials are given.

STEEL REINFORCEMENT FOR CONCRETE.—The American Wire Fence Co., 189 La Salle St., Chicago. Paper; 3½ × 6¼ ins.; pp. 4; illustrated.

The "American" reinforcement consists of wire netting of rectangular mesh. Its advantages are described, and there is a view of one of the buildings in which this style of reinforced concrete is used.

VALVES, TUBE CLEANERS, ETC.—Liberty Mfg. Co., 6910 Susquehanna St., Pittsburg, Pa. Paper; 3 pamphlets; 6 × 9 ins.; pp. 4 (each); illustrated.

These are descriptive pamphlets relating to the Faber blow-off valve, the Liberty boiler-tube cleaner, and the Twin strainer, for use on boiler feed pipes, suction and circulating piping, etc., to remove foreign matter from water.

DUMPING WAGONS.—Michigan Wagon & Mfg. Co., Jackson, Mich. Paper; 10¾ × 7½ ins., pp. 8; illustrated.

The Michigan dump wagon is of the drop-bottom type, with steel doors operated from a shaft and lever at the side of the driver's seat. Light draft and ease of loading and dumping are among the advantages claimed. The wagon is made in two sizes, of 1½ and 2 cu. yds. capacity.

WATERPROOFING FOR CONCRETE BLOCKS.—Sandusky Portland Cement Co., Sandusky, O. Paper; 6 × 3½ ins.; pp. 2; illustrated.

Particulars are given of absorption tests on concrete blocks made with and without the Medusa waterproof compound. After 24 hours the absorption was 5.16% of total weight when the compound was not used, and 0.70% and 0.30% in blocks having 1% and 2% of the compound added to the water.

LOCOMOTIVE VALVE GEAR.—Baldwin Locomotive Works, Philadelphia, Pa. Paper; 9 × 6 ins.; pp. 27; illustrated.

This is No. 55 of the firm's series of pamphlets, and relates to the Walschaert valve gear. The gear and its history are dealt with, and there are illustrations of several Baldwin engines equipped with the gear. Most of these are for foreign countries (including a Mexican engine of 1878), as it is only of late years that the Walschaert has come into use in this country.

REINFORCED CONCRETE PIPE.—Reinforced Concrete Pipe Co., Jackson, Mich. Paper; 8 × 10½ ins.; pp. 36; illustrated.

The pipe is made in lengths, with longitudinal and circular steel reinforcing bands, the former being interlocked at the joints so that when the cement joint is made the pipe is practically one continuous tube. It is used for sewers, water pipe, culverts and conduits, and the illustrations show its use in a number of places. In addition, there are records of tests of the strength of the pipe. Catchbasins and manholes of reinforced concrete are also mentioned.

CARD INDEX AND FILING CABINETS.—The Globe-Wernicke Co., Cincinnati, O. Paper; three catalogues; 6 × 9 ins.; pp. 95, 56 and 8; illustrated.

These pamphlets give some idea of the development and varied uses of the card system of keeping index and record files. The largest is a descriptive catalogue and price list of numerous styles of filing cabinets for letters and papers, as well as for cards. The second relates mainly to the cards used, and illustrates a number of forms for various purposes. The third is descriptive of a card index and cabinet filing system for engineers, surveyors and architects, showing different forms of cards used for indexing drawings and keeping record of different kinds of work.

PLANING MILL EXHAUSTERS. — The Green Fuel Economizer Co., Matteawan, N. Y. Bulletin 103. Paper; 3½ × 6 ins.; pp. 16; illustrated.

These fans are for handling shavings, bark, wool, hair, sawdust, etc. The novel feature of the exhauster is the cone-shaped blast wheel to the convex side of which the floats are fastened instead of to spokes. This construction is claimed to give greater durability, freedom from clogging and low power consumption. The booklet contains table of dimensions and description of these fans.

---

**For other Proposal Advertisements see pages 51, 52, 53, 54, of Advertisements and Construction News page 240.**

---

### CONCRETE STEEL BRIDGE.

Great Neck, L. I.

Sealed proposals for constructing a concrete steel bridge over Udall's mill pond at Great Neck, Nassau County, New York, and endorsed "Proposals for Bridge," will be received by the Highway Commissioners of the Town of North Hempstead, at the Town Clerk's Office, Roslyn, Long Island, until three P. M., Tuesday, July third, 1906, and will be publicly opened and read at that time.

The Board of Highway Commissioners reserve the right to accept any bid or reject any or all bids, should it deem it to the best interests of the Town of North Hempstead.

A certified check, drawn to the order of the Highway Commissioners, for the sum of $1,000.00, must accompany all bids.

Plans and specifications are on file at the Town Clerk's Office, Roslyn, Long Island, or may be seen and obtained from the office of William H. Bowne, Glen Cove, New York, who is the Engineer for the Commissioners.

R. E. ALLEN,
PAUL C. WOODNUT,
WILLIAM POST,
24-2t Highway Commissioners.

---

OFFICE, COMMISSIONERS, DISTRICT OF COLUMBIA, Washington, June 19, 1906. —Sealed proposals will be received at this office until 12 m., July 7, 1906, for furnishing water valves. Forms, specifications and necessary information may be obtained at this office. HENRY B. F. McFARLAND, HENRY L. WEST, JOHN BIDDLE, Commissioners, D. C. 25-2t

### ROADS.

Vaughan, N. C.

**Proposals for the construction of three miles of roadbed, approximately 22,000 cubic yards of excavation, in Warren Co., N. C., will be received by the Greenleaf Johnson Lumber Co., of Norfolk, Va., up to noon, Saturday, June 30, 1906. Profile and specifications may be seen at the Company's office, at Vaughan, N. C., on the Seaboard Air Line Railroad. The right to reject any and all bids is reserved. GREENLEAF JOHNSON LUMBER CO., Vaughan, N. C.**

Profiles for this work are on file at the office of Engineering News, New York. 24-2t

### WATER-WORKS AND SEWERS.

Casey, Ill.

Sealed bids will be received by the engineers and architects and the City Council of the city of Casey, Illinois, June 25th, 1906, at 8 P. M., at the Council Room in Casey, Illinois, for a complete system of waterworks, including 80,000 gallon water tower, with mains, etc., all complete; also for sewer pipe and the laying of same for a sewer system for said city all complete, with and without septic tanks; also for sections of street paving, as a whole or separately, as designated by said Council; also for the erection of a city building on North Jasper Avenue, all to be according to plans and specifications, to be had at the office of the City Clerk of said city, all proposals to be accompanied by certified checks or guaranteed drafts for 10 per cent. of the amount.

C. F. JOHNSON, Mayor.
B. B. STURDEVANT, Clerk. 25-1t

### WATER MAINS.

Braintree, Mass.

Sealed bids, addressed to the Water Commissioners of Braintree, Mass., and endorsed "Proposals for furnishing and laying Water Pipe," will be received at the office of the Water Commissioners, Town Hall, Braintree, Mass., until 3 o'clock p. m. on Monday, July 2d, 1906, and at that time and place will be publicly opened and read. The work to be done consists principally in furnishing and laying 8,600 ft. of 8-inch C.-I. Water Pipe with hydrants, special castings, etc., and involves carrying the pipe under the tracks of the N. Y., N. H. & H. R. R. Plans may be seen and specifications and forms of contract obtained at the office of the Water Commissioners on and after June 21st, 1906. The commissioners reserve the right to reject any or all bids, or to accept any bid should they deem it for the interest of the town of Braintree so to do.

BOARD OF WATER COMMISSIONERS,
25-2t Braintree, Mass.

### CONCRETE DAM AND PIERS.

Lancaster, Pa.

Sealed proposals will be received by the Water Committee of Lancaster, Pa., at the office of the City Controller, until 12 o'clock noon, Thursday, July 19th, 1906, for building concrete dam and piers at the pumping station.

Plans and specifications can be obtained at the office of the Engineer, F. H. Shaw, 503 Woolworth Building, or at the office of the committee, City Hall.

Each proposal must be accompanied by a certified check for the sum of five per cent. of the amount of the bid, payable to the City of Lancaster.

The committee reserves the right to reject any or all bids.

J. H. RATHFON,
City Controller.
JOHN A. LEINBACH,
25-2t Clerk Water Committee.

### CEMENT.

Columbus, Ohio.

Sealed proposals will be received at the office of this Board, until 12 o'clock, noon, of July 12, 1906, and then opened, for the delivery of Portland Cement, as follows:

12,000 barrels to be delivered at Akron, O.
1,700 barrels to be delivered at Coshocton, O.
3,000 barrels to be delivered in carload lots at railway stations between Middletown and Lockland, O.
2,500 barrels to be delivered at Defiance, O.
1,600 barrels to be delivered at St. Marys, O.
1,000 barrels to be delivered at Spencerville, O.

Particulars may be obtained from the Chief Engineer of Public Works, Columbus, Ohio.

25-3t CHAS. E. PERKINS,
Chief Engineer, Public Works of Ohio.

### GRADING, CURBING AND PAVING.

Salt Lake City, Utah, Ju[illegible] 1906.

Sealed proposals will be r[illegible] at this office until 11 o'clock a. m[illegible]ay, July 6th, 1906, for the work of g[illegible] curbing and paving Second Sou[illegible] from Third East Street to Tenth E[illegible]eet.

The approximate quantities [illegible]k to be done are as follows:

| | |
|---|---|
| Grading .................. | 20,0[illegible] yards |
| Curbing .................. | 11,[illegible] [illegible]ar feet |
| Asphalt pavement ...... | 38,000 [illegible] yards |

Instructions to bidders, [illegible] with specifications and forms for [illegible]t and bond can be obtained upon app[illegible] at the office of the Board of Public [illegible] or City Engineer.

The right is reserved to re[illegible]ny and all bids.

By order of the Board of Pub[illegible]rks,
F. J. LE[illegible]RD,
[illegible]rman.

LOUIS C. KELSEY,
City Engineer. 25-2t

---

TREASURY DEPARTMENT, O[illegible] of the Supervising Architect, Washing[illegible] D. C., June 15, 1906.—Sealed proposals [illegible] be received at this office until 3 o'c[illegible] P. M., on the 5th day of July, 1906, [illegible]d then opened, for furnishing and deli[illegible]g Post Office Lock Boxes, etc., as th[illegible] may be ordered for Post Offices in Public Buildings under control of the Treasury D[illegible]rtment, during the fiscal year ending Jun[illegible] 1907, in accordance with drawing and spe[illegible]fication, copies of which may be had at [illegible] discretion of the Supervising Architect by applying to this office. JAMES KNOX TAYLOR, Supervising Architect. 25-2t

PROPOSALS.—Fort Monroe, Va., June 12, 1906.—Sealed proposals, in triplicate, for furnishing and installing wire door and window screens in 30 sets Bachelor Quarters, 3 double sets officer's quarters, the Post Exchange and Gymnasium Building, 7 double sets non-commissioned officer's quarters, the Q. M. Office and Commissary Storehouse at Fort Monroe, will be received at the Office of the Constructing Quartermaster until noon, June 29, 1906. The United States reserves the right to accept or reject any or all proposals or any part thereof. Information furnished on application. Bids should be plainly marked as such on the envelope or outside wrapper. Address CAPTAIN R. H. C. KELTON, Q. M. 25-2t

DEPARTMENT OF THE INTERIOR, Washington, D. C., June 15, 1906. Sealed proposals will be received at the office of the Engineer, U. S. Reclamation Service, Billings, Montana, until 2 o'clock p. m., July 11, 1906, for the construction of Division 1, Garland Canal, Shoshone Project, involving the excavation of about 600,000 cubic yards of earth, about 96,000 cubic yards of rock and shale, and the construction of incidental structure, about 15 miles northeast of Cody, Wyoming. Particulars may be obtained from the Reclamation Service, Washington, D. C., or Cody, Wyoming. E. A. HITCHCOCK, Secretary. 25-3t

DEPARTMENT OF THE INTERIOR, Washington, D. C., June 15, 1906.—Sealed proposals will be received at the office of the United States Reclamation Service, Billings, Montana, until 2 o'clock p. m., August 7, 1906, for constructing a pumping plant, involving about 15,000 cubic yards of earth excavation, 600 cubic yards of concrete, building about 2,000 feet of reinforced concrete pipe, furnishing 120,000 pounds of steel, and furnishing and installing water-power pumping plant, consisting of two vertical-shaft pumping units and accessories, each unit having a capacity of 28 cubic feet of water per second, lifted fifty feet. The plant will be located near Ballantine Station on the Chicago, Burlington and Quincy Railway, 23 miles east of Billings, Montana. Particulars may be obtained from the Chief Engineer of the Reclamation Service, Washington, D. C., or the Engineer, Huntley, Montana. E. A. HITCHCOCK, Secretary. 25-5t

TREASURY DEPARTMENT, Office of the Supervising Architect, Washington, D. C., June 12, 1906.—Sealed proposals will be received at this office until 3 o'clock P. M., on the 17th day of July, 1906, and then opened, for the installation of a conduit and wiring system for the U. S. Post Office, Court House and Custom House at Laredo, Texas, in accordance with drawings and specification, copies of which may be had at this office, or at the office of the Superintendent of Construction, Laredo, Texas, at the discretion of the Supervising Architect. JAMES KNOX TAYLOR, Supervising Architect. 25-2t

DEPARTMENT OF THE INTERIOR, Washington, D. C., June 11, 1906.—Sealed proposals will be received at the office of the United States Reclamation Service, Salt Lake City, Utah, until 3 o'clock p. m., August 30, 1906, for the construction of the Strawberry Tunnel, involving 18,600 linear feet, more or less, of tunnel, the same being a portion of a system for the diversion of about 500 cubic feet of water per second from Strawberry River to the Spanish Fork Valley, Utah. Particulars may be obtained from the chief engineer of the Reclamation Service, Washington, D. C., or the engineer, Salt Lake City, Utah. E. A. HITCHCOCK, Secretary. 25-3t

U. S. ENGINEER OFFICE, Mobile, Ala., June 1[illegible], 1906.—Sealed proposals for dredging in Harbor at Biloxi, Miss., will be received here until noon, July 16, 190[illegible] and then publicly opened. Information furnished on application. J. B. CAVANAUGH, Capt., Engrs. 25-4t

## PUMP STATION AND INTAKE.

Columbus, Ohio.

Sealed ls for furnishing the labor
and mate the construction of a water-
works p station and intake for the
City of C us, Ohio, will be received by
the Boar ublic Service until 12 o'clock
noon (sta time) of July 18, 1906, in ac-
cordance he plans and specifications on
file in th e of said Board and in the
custody ry Maetzel, Chief Engineer,
Departme Public Service.

Each p l must be accompanied by a
certified on a solvent bank, or a pro-
posal bo r an amount equal to at least
10 per c f the bid. A bond for 50 per
cent. of mount of the contract will be
required e successful bidder.

Copies he specifications can be had
upon ap on after June 21, 1906, for the
sum of $2 each.

Copies e plans on sheets 30 inches by
40 inches, in number, will be loaned only
to prosp contractors applying in per-
son, and n deposit of a certified check
for $100.0 drawn payable to the order of
Henry M tzel, Chief Engineer, Board of
Public Se , for each set of plans, and the
signing of receipt for the same, agreeing
to return d plans to the City on or be-
fore July 21, 1906. The deposits for plans
will be re ned when plans have been sur-
rendered above noted.

A copy of the plans and specifications can be seen after June 21, 1906, at the office of Hering & Fuller, 170 Broadway, New York.

By order of the Board of Public Service.

E. F. McGUIRE,
Secretary.

25-3t

---

## GRADING, CURBING AND PAVING.

Salt Lake City, Utah, June 15, 1906.

Sealed proposals will be received at this office until 11 o'clock a. m. Friday, July 6th, 1906, for the work of grading, curbing and paving State Street, from Fourth South Street to Seventh South Street, and Fourth South Street from West Temple Street to Second East Street.

The approximate quantities of work to be done are as follows:

| | |
|---|---|
| Grading .................. | 14,000 cubic yards |
| Curbing ..................... | 9,400 linear feet |
| Asphalt pavement ...... | 36,000 square yards |
| Concrete pavement ........ | 360 square yards |

Instructions to bidders, together with specifications and forms for contract and bond can be obtained upon application at the office of the Board of Public Works or City Engineer.

The right is reserved to reject any and all bids.

By order of the Board of Public Works.

F. J. LEONARD,
Chairman.

LOUIS C. KELSEY,
City Engineer. 25-2t

---

## SEWERS.

Woonsocket, R. I.

Sealed proposals will be received by the Board of Sewer Commissioners, Woonsocket, R. I., at their office in the City Hall Building, until 2 o'clock p. m., Thursday, July 5, 1906, for building sewers and appurtenances as follows:

(a) In South Main Street, Island Place, through right-of-way from Island Place to Armory Street, and through Armory Street to Allen Street, about 750 feet of 8-inch and 500 feet of 24-inch pipe sewer.

(b) In Social Street about 1,300 feet, in Greene Street about 600 feet, in Cass Avenue about 250 feet, in Wood Avenue about 800 feet, and in Front Street about 1,450 feet, all 8-inch pipe sewer.

Each item as above must be bid for separately, and each bid must be accompanied by a certified check for the sum of five hundred ($500) dollars, made payable to the order of Samuel P. Cook, City Treasurer, as surety that if the bid is accepted a contract will be entered into.

Plans and specifications may be seen and blank form of contract and proposal obtained at the office of the City Engineer, City Hall Building, Main Street, Woonsocket, R. I.

The right is reserved to reject any and all bids.

FRANK E. HOLDEN,
GEORGE S. READ,
GEORGE H. VALOIS,
Board of Sewer Commissioners.
FRA K H. MILLS, City Engineer.
Woo socket, R. I., June 18, 1906. 25-2t

---

## MACADAM ROAD.

Blackwood Turnpike, Camden County, N. J.

Sealed proposals are invited for macadamizing the Blackwood Turnpike Road, from Heading to Chews Landing, in Camden County, a distance of two and one-half miles, more or less.

Bids will be received, immediately opened and publicly read at the Board of Chosen Freeholders' Room, in the Court House, Camden, N. J., on Wednesday, July 11th, 1906, at 11 A. M.

Plans and specifications can be seen at the office of Fred. W. George, Clerk of Board of Chosen Freeholders, Court House, Camden, N. J.; State Commissioner of Roads, Trenton, N. J., and in the office of Engineering News, New York City, N. Y.

Each bid must be accompanied by a certified check in amount of One Thousand Dollars as a guarantee of good faith.

The board reserves the right to reject any or all bids.

ALFRED L. SAYERS,
Director.
J. J. ALBERTSON, County Engineer.
Dated Camden, N. J., June 11, 1906. 25-3t

---

## STORAGE RESERVOIR.

Altoona, Pa.

Sealed proposals will be received by the Board of Water Commissioners of the City of Altoona, Pa., until 12 o'clock noon, on the Second Day of August, 1906, for the construction of a storage reservoir on Burgoons Run, with all its accessories, as shown on the plans or called for in the specifications.

Plans can be seen and specifications obtained at the office of the Board.

The Board hereby reserves the right to reject any or all bids, or accept any that in their judgment will be for the best interests of the city.

A bond satisfactory to the Board in amount and sureties will be required of those to whom the contract may be awarded.

Cash or a certified check, made payable to the order of the Board of Water Commissioners, of Altoona, Pa., to the amount of $1,000.00 must be deposited by each bidder and accompany his bid as a guarantee that in case the contract is awarded to him, he will, within seven days thereafter, execute said contract.

Bids must be sealed and addressed to the Board of Water Commissioners, Altoona, Pa., and marked on the outside of the envelope enclosing them, "Proposals for Storage Reservoir."

Signatures of Board Members:

F. C. GERHARDT, Chairman,
H. K. McCAULEY,
S. M. GRIFFITH,
25-4t C. B. CAMPBELL, Secretary.

---

## SCHOOL BUILDINGS.

Schenectady, N. Y.

Notice is hereby given, that sealed proposals will be received by the Board of Contract and Supply of the City of Schenectady, N. Y., until 2 p. m., June 28, 1906, at their office in the City Hall, for supplying all material and performing all labor required in the construction of three twelve-room school buildings, as follows:

1. For the mason work, carpenter work, roofing, painting, etc., as covered by the general specifications and plans.
2. For the plumbing, heating and ventilating, according to plans and specifications.
3. For the electrical work.

Proposals for each class of work must be separate, properly indorsed on the back with the title of the work and accompanied by cash or a certified cheque for 5 per cent. of the amount of bid made payable to the City of Schenectady.

Plans may be seen and specifications and bidding blanks procured at the office of the architects, the Arthur G. Lindley Company, office Parker Building, Schenectady, N. Y.

Blue prints of the proposed school buildings may be procured, should any person desire them, at the rate of $5 per set on three days' notice.

The Board reserves the right to reject any or all bids.

C. O. DUNNING, Clerk,
25-1t Board of Contract and Supply.

---

## PAVING.

Champaign, Ill.

Sealed proposals are asked until 2 o'clock P. M., June 28, 1906, by the Board of Local Improvements for paving West Clark Street, 8,423 sq. yds. brick pavement, 5,560 lineal feet concrete curb and gutter, 4,600 cubic yards excavation. Plans and specifications may be had from G. C. FAIRCLO, City Engr.

25-1t

---

## MACADAM ROAD.

Second Section of the Freehold and
Colt's Neck Road, Monmouth, N. J.

Sealed proposals to build the Second Section of the Freehold and Colt's Neck macadam road, 2 18-100 miles long, as designated upon the plans and specifications, will be received by the Board of Chosen Freeholders of the County of Monmouth, N. J., at the Court House in Freehold, on Wednesday, July 11th, 1906, at 12 o'clock noon of said day, and then and there publicly opened. Specifications and all information regarding said construction may be obtained by applying to Peter Forman, Engineer, at his office at Manalapan, N. J.—Post-office, Englishtown," N. J.—or at the County Collector's office at the Court House in Freehold; or of Frank E. Hyer, Chairman of the Road Committee, at Colt's Neck, New Jersey. Each bidder must accompany his bid with a certified check for one thousand dollars, payable to the Director of the Board of Chosen Freeholders, as a guarantee; if said work is awarded to him, he will enter into a contract with said Board, for the due and proper performance of the same; which contract must be executed, together with the bond of the successful bidder, within the term of thirty days from the time of awarding the contract; in the penal sum of at least the total estimated cost of the work, with two or more sureties, freeholders, or a good and sufficient surety or trust company, all to be first approved by the Director of the Board, and conditioned, for his faithful performance of the work in strict conformity with the plans and specifications. The Board of Freeholders reserves the right to reject any or all bids.

JOHN GUIRE,
Director.
Dated June 18, 1906. 25-3t

---

## DREDGING, CONCRETE ABUTMENTS, AQUEDUCTS, LOCKS, ETC.

Columbus, Ohio.

Sealed proposals will be received at the Office of this Board until 12 o'clock, noon, on the 10th day of July, 1906, and then opened, for the dredging of the Miami and Erie Canal from the Middletown lock to the upper lock at Lockland, a distance of about 29 miles, estimated at 350,000 cubic yards; the construction of concrete additions to the abutments of the Lesourdsville and Sunfish aqueducts; rebuilding an aqueduct located 6 miles north of St. Marys; two spans of about 80 feet each, at the Miami aqueduct, near Tadmor; rebuilding 12 locks between Middletown and Lockland, two locks in Defiance and one lock located about 5 miles north of St. Marys; for about 100,000 feet B. M. hardwood lumber for lock gates and sheeting delivered at railway stations between Middletown and Lockland, and the construction of a culvert in the village of Spencerville, all on the Miami and Erie Canal.

Particulars may be obtained from the Chief Engineer of Public Works, Columbus, Ohio, or from the Canal Engineer, Middletown, Ohio, after July 2, 1906.

25-3t CHAS. E. PERKINS,
Chief Engineer, Public Works of Ohio.

---

## BUILDING.

Poughkeepsie, N. Y.

Sealed proposals, suitably endorsed on envelope, for Construction of a Chronic Building, including Heating, Plumbing, Electric Light Wiring, Fixtures and Feeder Cables from Power-House; and for an Acute Building, including Construction, Heating, Plumbing, and Electric Light Wiring and Fixtures, and Pole Lines and Transformers, at the Hudson River State Hospital, Poughkeepsie, N. Y., will be received up to three o'clock P. M. on Wednesday, the 27th day of June, 1906, by the State Commission in Lunacy, at the Capitol, Albany, N. Y., when bids will be opened and read publicly.

Drawings and specifications may be consulted and blank forms of proposals obtained at the Hudson River State Hospital, Poughkeepsie, N. Y., or by application to G. L. Heins, State Architect, Capitol, Albany, N. Y.

Contracts will be awarded to the lowest responsible and reliable bidders unless the bids exceed the amount of funds available therefor, in which case the right to reject all bids is reserved.

N. B.—Only bids for the complete work of construction, heating, plumbing and electric work combined will be considered.

T. E. McGARR, Secretary,
State Commission in Lunacy.
Dated Albany, N. Y., June 18, 1906. 25-1t

---

## GRADING, CURBING AND PAVING.

Salt Lake City, Utah, June 15, 1906.

Sealed proposals will be received at this office until 11 o'clock a. m., Friday, July 6, 1906, for the work of grading, curbing and paving East Temple Street, from Fourth South to Ninth South Street.

The approximate quantities of work to be done are as follows:

| | |
|---|---|
| Grading..................... | 10,000 cubic yards |
| Curbing........................ | 8,000 linear feet |
| Asphalt pavement........ | 23,000 square yards |
| Concrete pavement...... | 1,100 square yards |

Instructions to bidders, together with specifications and forms for contract and bond can be obtained upon application at the office of the Board of Public Works or City Engineer.

The right is reserved to reject any and all bids.

By order of the Board of Public Works.

F. J. LEONARD,
Chairman.

LOUIS C. KELSEY,
City Engineer. 25-2t

---

## ROAD IMPROVEMENTS.

Mt. Kisco, N. Y.

Sealed proposals will be received by the Town Board of the Town of Bedford, Westchester Co., N. Y., at the Office of the Town Clerk, in the Village of Mt. Kisco, until 3:30 o'clock p. m., on the 10th day of July, 1906, when they will be opened.

For macadamizing, grading and otherwise improving the road or highway leading from Bedford Station to Bedford Village. The work to extend from the tracks of the N. Y. & Harlem R. R. to the State Road near the residence of R. P. Lounsbury, a distance of about four and two-tenths (4.2) miles. Also the road or highway leading from Bedford Village past the Cliff School House. The work to extend from the State Road near the old Court House, to the forks of road near the Cliff School, a distance of about one mile.

Plans may be seen, blank forms of proposals, specifications and other necessary papers can be obtained on application at the office of Joseph E. Merriam, the Town Clerk, or at the office of Byrne & Darling, Engineers-in-Charge, White Plains, N. Y., on and after Monday, June 25th.

The Town Board reserves the right to reject any and all bids or to accept any bid or bids, which in their judgment may be most favorable to the Town of Bedford.

JOSEPH E. MERRIAM,
25-2t Town Clerk.
Dated Mt. Kisco, N. Y., June 15th, 1906.
By order of the Town Board.

---

## GRADING, CURBING AND PAVING.

Salt Lake City, Utah, June 15, 1906.

Sealed proposals will be received at this office until 11 o'clock a. m. Friday, July 6, 1906, for the work of grading, curbing and paving First South Street, from West Temple Street to Third West Street.

The approximate quantities of work to be done are as follows:

| | |
|---|---|
| Grading...................... | 6,500 cubic yards |
| Curbing........................ | 4,600 linear feet |
| Asphalt pavement........ | 19,000 square yards |

Instructions to bidders, together with specifications and forms for contract and bond can be obtained upon application at the office of the Board of Public Works or City Engineer.

The right is reserved to reject any and all bids.

By order of the Board of Public Works.

F. J. LEONARD,
Chairman.

LOUIS C. KELSEY,
City Engineer. 25-2t

---

## PAVING.

Indiana, Pa.

Sealed proposals will be received at the Council Chamber of the Borough of Indiana, Pa., until 7.30 p. m., June 29, 1906, for paving about 50,000 square yards.

A certified check for $1,000 must accompany each bid. The Borough reserves the right to reject any or all bids.

R. M. MULLEN,
25-1t. Boro. Engr.

---

## EXTENSION OF TIME.

Cohoes, N. Y.

Notice is hereby given that the date of receiving bids for paving about 10,789 sq. yds. of streets in this city, as advertised in Engineering News, June 14, has been extended from June 19 to June 26. 25-1t

WILLIAM J. ELLIOT.

## MUNICIPAL FUEL GAS PLANT.

Village of Winnetka, Ill.

Bids will be received at the office of the Supt. of Public Works of the Village of Winnetka, on or before 5 P. M. of the 2d day of July, 1906, for the installation of a Fuel Gas Plant, on the basis of the following general specifications:

The capacity of the plant shall be three million cubic feet per month, estimated on the basis of 600 heat units.

The design shall be such that the plant can be enlarged and extended without remodeling.

All necessary building shall be included and shall be of brick with steel roof, and built in the most substantial manner.

All foundations shall be included.

All machinery and apparatus necessary for the complete plant in operation shall be included, except the pipe main, which will be furnished by the Village.

State detailed cost of producing the gas and placing it in the holder per thousand cubic feet, including maintenance of plant with an output of one million, two million and three million cubic feet per month.

State heat units and efficiency of the gas, both for fuel and explosive engines—light not considered.

State whether transmitted under high or low pressure, and what.

State size of main necessary to deliver entire output to a point one mile distant from plant—¼ of which output will be delivered between the hours of five and ten P. M. If you will use an auxiliary storage tank at the end of said main include the same in your bid and specifications.

If you supply service reducers, state cost of same.

Bids must be accompanied by full specifications and plans of the particular process and apparatus.

In considering bids, cost in the holder, cost of maintenance, heat units and efficiency, simplicity of operation and by-products, will be important factors.

The right to reject any or all bids is reserved.

F. E. HUDMAN,
25-2t Supt. of Public Works.

## SEWERS.

Norfolk, Nebr.

Sealed proposals will be received by the undersigned at his office up to five o'clock Friday P. M., June 29th, and will be publicly opened at the City Council session to be held on the evening of said day. Said proposals to cover material and labor for the complete construction of the main sewer system of the City of Norfolk, Nebraska, as per plans, profiles and specifications prepared by Andrew Rosewater, Consulting Engineer, and on file in the City Clerk's office. The following being an approximate abstract of the same:

865 lineal feet, more or less, of Standard 12-inch clay pipe.

5,780 lineal feet, more or less, of Standard 15-inch clay pipe.

4,900 lineal feet, more or less, of Standard 18-inch clay pipe.

4,800 lineal feet, more or less, of Standard 21-inch clay pipe.

or their equivalent in brick or concrete as per plans on file.

36 manholes, more or less, of brick or concrete, average depth, 8 feet.

8,000 feet, more or less, of 4-inch drain tile laid in trenches where required.

8,000 feet, more or less, of 6-in. drain tile laid in trenches where required.

14,000 lbs., more or less, of cast-iron covers.

100 cubic yards, more or less of broken stone placed in the work.

100 cubic yards, more or less, of gravel placed in the work.

100 cubic yards, more or less, of concrete placed in the work.

5,000 cubic yards, more or less, of grading.

30,000 feet, more or less, B.M. of pine lumber left in the work.

The city reserves the right to reject any and all bids or parts of bids, and to waive any defects.

Each proposal on the above must be accompanied with a cash deposit, or a certified check on a local bank, payable to the City Treasurer of Norfolk, in the amount of ($500.00) Five Hundred Dollars, as liquidated damages, to be forfeited to the City of Norfolk if the bidder, being declared the lowest bidder and awarded the contract, shall fail to enter into contract with the City of Norfolk within ten (10) days of said award, for the construction of said sewers and appurtenances under the specifications and in accordance with the plans; otherwise said deposit shall be returned to each successful bidder.

JULIUS HULFF,
25-2t City Clerk.

## REBUILDING LOCKS, DAMS, ETC.

Columbus, Ohio.

Sealed proposals will be received at the Office of the State Board of Public Works, Columbus, Ohio, until 12 o'clock, noon, of July 12, 1906, and then publicly opened, for the rebuilding of 21 locks on the Ohio Canal in and near the City of Akron, Ohio, together with other minor structures on the same sections.

Also, at the same time and place, for rebuilding Lock No. 16, at Trenton, Tuscarawas County, Ohio.

Also, on July 19, for the construction of a concrete dam on the Walhonding River, six miles west of Roscoe, Ohio.

Also, on July 19, for the dredging of the Walhonding feeder from Roscoe to Six Mile Dam.

Also, for 190,000 feet B. M. lumber for lock gates and sheeting plank.

Plans and specifications for the above work will be on file on and after July 2, 1906, at the Office of Chief Engineer of Public Works at Columbus, Ohio, and at the Office of the Engineer of Improvement of Ohio Canal at Akron, Ohio, and Coshocton, Ohio, where information may be obtained relative to quantities, bonds and blanks for proposals.

CHAS. E. PERKINS,
Chief Engineer.
By order of Board of Public Works. 25-3t

## CONCRETE SEWERS.

Lancaster, Pa.

Sealed proposals will be received by the Special Sewerage Commission of Lancaster, Pa., at the office of the City Controller, until 12 o'clock, noon, Tuesday, July 19, 1906, for building about 3,600 feet of 108-inch reinforced concrete sewer and appurtenances.

Plans and specifications can be obtained at the office of the Engineer, F. H. Shaw, 503 Woolworth Building, or at the office of the clerk of the commission, 40 North Duke Street.

Each proposal must be accompanied by a certified check for the sum of five per cent. of the amount of the bid payable to the City of Lancaster. The Commission reserves the right to reject any or all bids.

J. H. RATHFON,
City Controller.
CHAS. G. BAKER,
Clerk Special Sewerage Commission. 25-2t

## WATER-WORKS.

Trinidad, Colo.

Sealed proposals will be received by the City Clerk, City of Trinidad, Colorado, at his office in the City Hall, until two o'clock P. M., July the second, 1906, for furnishing all material and appliances and the furnishing of all labor and tools necessary to construct twenty-four (24) miles of pipe line or conduit for the purpose of extending the City's water supply.

INSTRUCTIONS.

Bids will be received for a complete line constructed entirely of cast-iron, steel, wood, or reinforced concrete, furnishing all material and labor.

Bids will be received for furnishing all the pipe, specials and material, f. o. b. Trinidad, Colorado.

Labor and material bid for must be separately stated in the bid.

Bidders must furnish satisfactory evidence of their ability and experience to furnish, deliver, and construct work of the character bid upon in their proposal.

Bidders must use printed forms, as no other will be accepted.

Bidders will be furnished specifications, form of proposal, contract and bond, and such information as to the plan and profile, upon application to the Chief Engineer of the Water-Works Extension, Rooms 9-10, Colorado Building, Trinidad, Colorado. Each proposal must be accompanied by a certified check of two thousand dollars ($2,000), made payable to the City Treasurer, as a guarantee that the successful bidder will furnish satisfactory bond, and enter into contract with the City within ten days from receiving notice of acceptance.

All bids rejected will have certified checks promptly returned. The City reserves the right to reject any or all bids or to accept any bid that may be to the interest of the city.

I. D. MILLIKEN,
25-2t City Clerk.

DEPARTMENT OF THE INTERIOR, Washington, D. C., June 15, 1906.—Sealed proposals will be received at the office of the engineer, United States Reclamation Service, Billings, Montana, until 2 o'clock p. m., July 24, 1906, for furnishing about 405,000 pounds of steel bars for reinforcement of concrete. Particulars may be obtained by application to the Chief Engineer of the Reclamation Service, U. S. Geological Survey, Washington, D. C., or to the Engineer, Cody, Wyoming. E. A. HITCHCOCK, Secretary. 25-3t

## JUST PUBLISHED

# City Roads and Pavements

### Suited for Cities of Moderate Size

By WILLIAM PIERSON JUDSON

Third edition, revised and brought thoroughly up-to-date

This edition has been prepared in response to the continued call for the book as a guide to the building of rural highways as well as of city pavements

### SOME COMMENTS ON THE SECOND EDITION

N. Y. TRIBUNE—"The work goes into the details of street construction and maintenance, including cost and materials, and shows a comprehensive knowledge and understanding of the subject."

MUNICIPAL JOURNAL—"A handy volume of fine appearance, which will be of interest and value to municipal officials and to all who are interested in road construction."

ENGINEERING RECORD—"A book in which conciseness and accuracy of statement are materially assisted by excellent illustrations."

BUFFALO EXPRESS—"The book is of value not only to engineers and contractors, but to the layman who, because he is a taxpayer, a driver, or an official, is, or should be interested in this important subject."

ENGINEERING MAGAZINE—"One valuable feature is a description of simple and practical cement tests which can be made by the city engineer himself, with an outfit costing not over four dollars, and which can be stored in a pigeonhole."

Descriptive Circular on Application

Cloth, 6 x 9 inches, 197 pages, 69 illustrations
Price, $2.00 net

**The Engineering News Publishing Company**
220 Broadway, New York

## GRADING, CURBING AND PAVING.

[illegible]adville, Pa.

The Select and Commo[illegible]ncils of the City of Meadville, Pa., w[illegible]ive separate sealed proposals up until [illegible] M., Wednesday, June 27, 1906, for th[illegible]ing, curbing and paving of six different [illegible]s of streets with asphalt block, vit[illegible]rick, sheet asphalt and bitulithic pa[illegible] Approximately 30,211 square yards [illegible]ng. Water Street, between Pine and [illegible]r. Water Street, between Mercer and [illegible]r. Market Street, between Center and [illegible]nut. Market Street, between Chestnut [illegible]Arch. Park Avenue, between Baldwin [illegible]City limits, north. Park Avenue, betw[illegible]hestnut and City limits, south. Said w[illegible] to be done in accordance with the p[illegible]ow in the office of the City Engin[illegible] Contractors must furnish all materials in [illegible]onstruction of said work. A bond with s[illegible]nt sureties or a certified check made pa[illegible] to the City Treasurer, for the sum o[illegible]0.00, must accompany each bid or the s[illegible] will not be considered. The City reserv[illegible]e right to reject any and all bids.

H. S. RO[illegible]NSON,
25-1t [illegible]ty Clerk.

## SITUATIONS OPEN

WANTED.—An experienced construction engineer, with business ability, to take charge of branch office of large manufacturing and constructing company. Address "G. 24," Engineering News, New York. 24-2t

WANTED.—Superintendent take charge general construction work, concrete, buildings, etc.; send references regarding past experience. BRADY CONSTRUCTION COMPANY, Fairmont, W. Va. 24-3t

ENGINEER or contractor, with 10 years' practical experience general contracting, including reinforced concrete, capable to manage work; percentage if desired. Chicago company; replies confidential. Address "K. 24," Engineering News, New York. 24-2t

WANTED.—A transit man for general work; one with experience around steel plants and blast furnaces and with good knowledge of railroad work preferred. One draftsman for railroad map work. Apply, giving age, experience, etc., to G. R. RAMSEY, Civil Engineer, Tennessee Coal, Iron & R. R. Co., Ensley, Ala. 24-4t

PROPRIETOR small but growing manufacturing concern, building brick machines, steam pumps and special machinery, wants services of experienced man with technical and business training, able to take complete charge; man willing to prove value by working for minimum salary and percentage of profits preferred. Address "A. A. 24," Engineering News, New York. 24-tf

FROG AND SWITCH DRAFTSMAN: one familiar with all the details of the work; state experience, age, married or single, salary expected, and when he can report for work. Address "S. A. 17," Engineering News, New York. 24-tf

DRAFTSMAN.—Experienced detailer and checker on structural iron; good chance for right man. Address "L. A. 25," Engineering News, New York. 25-2t

FIRST-CLASS structural and mechanical draftsman for engineering office in New York. State age, education, experience, married or single, and send small print or sample of work. Address "W. B. 25," Engineering News, New York. 25-1t

SUPERINTENDENT—A thoroughly competent superintendent for a large stone quarry, now being opened; must understand erecting derricks, machinery, etc., as there will be a stone crushing and sand crushing plant in connection with the bridge stone; a good salary will be paid the right man; habitual drunkards not wanted. Address "S. B. 25," Engineering News, New York. 25-1t

WANTED AT ONCE, several first-class structural detailers and checkers. Steady positions to right men. HINKLE IRON CO., 534 W. 56th St., New York. 25-1t

WANTED—Capable civil engineer for field work, estimating, drafting, etc. Address, giving experience and stating salary expected, FICKLEN & STOBAUGH, 516 Mechanics' Bank Bldg., Brooklyn, N. Y. 25-1t

DRAFTSMEN for land plan work, capable of plotting from railroad survey notes. Address "X. B. 25," Engineering News, stating age, experience, and lowest salary; send blue-print sample of work. 25-1t

## FOR SALE

FOR SALE

One 20 x 22¼ x 24 Straight Line, Class "A"

**Ingersoll Air Compressor**

Code Word, ANTHONY—with 48-inch x 96-inch Receiver. Capacity 978 cubic feet per minute. Used three years. Price, $1,000.00.

THE AKRON WATER WORKS COMPANY,
Akron, Ohio.